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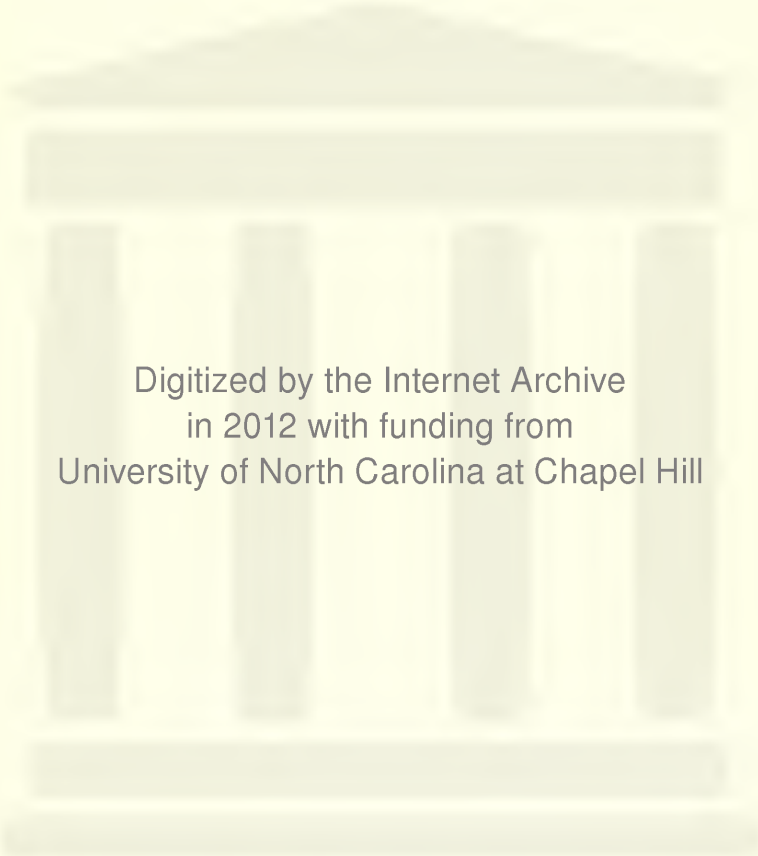
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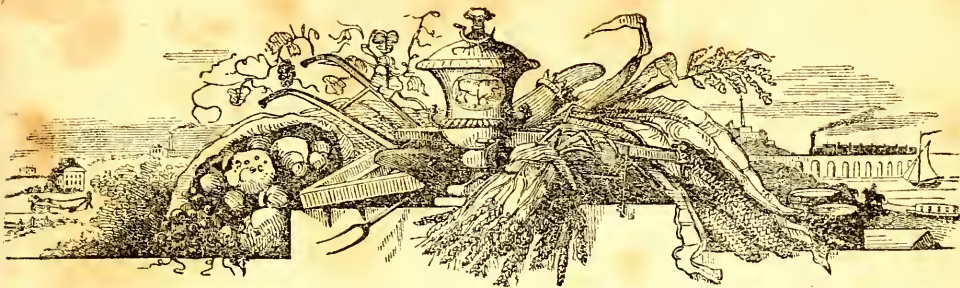


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THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

VOL. 1.

RALEIGH, N. C. MARCH, 1855.

NO. 1.

WILLIAM D. COOKE, PUBLISHER.

State Agricultural Society.

NORTH CAROLINA AGRICULTURAL SOCIETY.

A called meeting of the North Carolina State Agricultural Society, was held in the Commons Hall in the city of Raleigh, on the 20th day of January, 1855.

Meeting called to order by the President, and James F. Taylor, of Wake, appointed Secretary, *pro tem*.

A quorum of members of the Society, not being present, the following gentlemen came forward and became members of the Society, viz: Walter L. Steele, of Rockingham, Richmond County; Jos. B. Cherry, Bertie co.; Dr. Milton Selby, Hyde co.; Hon D. M. Barringer, Cabarrus co.; William H. Lyon, Granville co.; B. H. Tomlinson, Johnston co.; C. H. Woods, Craven co.; E. J. Shaw, Sampson co.; Hon. W. A. Graham, Orange co.

A quorum being present, on vote of the Society, the office of Recording Secretary was declared vacant.

On motion of Mr. K. Rayner, the Society proceeded to elect a Secretary; and John C. Partridge was declared duly elected, having received a majority of the votes cast.

On motion of Col. Humphrey, the following resolution was adopted:

Resolved, That the Ex-Committee be authorized to adopt, as the organ of this society any agricultural periodical published in this State, which they may think proper, and that they be requested to take such steps towards securing subscribers as in their judgment they see proper.

On motion of Dr. E. A. Crudup, the following resolution was adopted:

Resolved, That a committee of three persons be appointed by the President to revise and superintend the publication of the proceedings of this society, from its organization.

The Chair appointed the following gentlemen to compose the committee raised under the foregoing resolution, viz: Dr. Edward A. Crudup, and Messrs. W. D. Cooke and Thos. J. Lemay.

The following resolution was introduced by Hon. Kenneth Rayner, of Hertford, and unanimously adopted:

Resolved, That a committee of five, including the President, be appointed by the Chair, to draw up a memorial to be presented to the General Assembly, now in session, asking a contribution from the Treasury of the State, towards the payment of premiums and other expenses incident to the management of the affairs of the North Carolina State Agricultural Society.

The committee appointed under the resolution are Dr. Edward A. Crudup, of Franklin; Mr. R. A. Hamilton, of Granville; Mr. J. W. Norwood,

of Orange; Dr. Frederick Hill, of New Hanover; and (by order of the Society,) the President.

Vacancies having occurred in the Ex. Committee, by the death of S. W. Whiting and Jere. Nixon, it was suggested that the vacancies be filled by the President.

The meeting adjourned till Friday evening at 7 o'clock.

RALEIGH, January 12, 1855.

The North Carolina State Agricultural Society met in the Commons Hall, at 7 o'clock, P. M., pursuant to adjournment—Hon. Thomas Ruffin, the President, in the Chair.

Giles Mebane, of Alamance, and Samuel P. Hill, of Caswell, became members of the Society.

Dr. Crudup reported that Mr. Partridge, who had been elected Recording Secretary of this Society, found it necessary, in consequence of other duties, to decline the appointment, upon which Mr. Rayner moved that Thos. J. Lemay be appointed Recording Secretary, when the Society proceeded to the election by ballot.

Mr. Taylor, who was appointed to receive the votes, reported that 32 votes were given, and Mr. Lemay having received the whole number, was duly elected.

Dr. Crudup, from the committee to prepare a memorial to the Legislature, asking an appropriation from the Public Treasury in aid of the funds of the institution, submitted the following memorial, which was read and adopted:

"The memorial of the State Agricultural Society of North Carolina to the General Assembly respectfully represents:

That in the year 1852, a Society was formed by a few citizens, who felt an interest in the Agriculture of North Carolina and a deep desire for its prosperity. It was formed in the hope and belief, that such a Society, if properly conducted, might greatly promote the improvement and profits of our husbandry and other pursuits connected with it; and thereby add to the wealth and welfare of the State. In the beginning, the Association was altogether voluntary. But the Legislature of 1852, believing such a Society an useful instrument for effecting the ends proposed,

gave it a legal and permanent existence by an act of incorporation, under the name of the State Agricultural Society of North Carolina. Many persons have, since, united themselves to the Society, and it has increased considerably—numbering nearly one thousand members. It has proceeded to fulfil its purposes, as far as it could obtain pecuniary means, by procuring and improving convenient grounds for holding a Fair in the vicinity of Raleigh, and holding a Fair in the month of October in the years 1853 and 1854.

Such Associations have been eminently useful in other places, and, particularly, in some of our sister States of the South. They are beneficial by periodically bringing together the most intelligent and enterprising agriculturists, and others engaged in vocations auxiliary to agriculture, for mutual instruction, emulation, and pecuniary and honorary rewards. Hence the Legislatures in several of the States have deemed it just and wise to countenance and sustain Societies of that character, not only by granting charters of incorporation, but further more, by endowments to enable them in part to defray the expenses incurred in procuring Fair grounds and keeping them in order, paying premiums to successful competitors, and otherwise in conducting the operations of the Society.

Your memorialists show, that hitherto the income of this Society (with the exception of a few donations) hath been derived entirely from an initiation fee, an annual voluntary contribution of each member, and a toll for admission to the Fair grounds during the annual exhibition. These fees and tolls are, of course, small, in order to invite accessions to the Society, and a larger attendance of visitors, and thereby diffuse more extensively the interest taken in the proceedings of the Society, and the benefits to be derived from them. Within the two years of the Society's existence, an aggregate sum of eleven thousand five hundred dollars has been thus raised; which, it is not doubted, your honorable body will deem not inconsiderable, but creditable to the public spirit of our citizens, in view that it was raised by the self-taxation of individuals for public uses. But even that sum

has proved inadequate. For the whole of it has been disbursed on the Fair grounds, in premiums, unavoidable and incidental charges; and there is, at this time, a deficit in the funds of the Society, needed to meet its engagements, of about twelve hundred dollars.

It must be obvious, that the existence of the Society is very precarious and its usefulness much circumscribed, while it is thus dependant, for indispensable funds, on such uncertain sources. A person ceases to be a member by withdrawing when he pleases; and no further contribution is to be expected from him. So, a week of bad weather during the period selected for the Fair, prevents the attendance of visitors, and receipts from that source are cut off. These causes may, therefore, greatly curtail the income of the Society, and deprive it of the ability to meet its engagements, on which its capacity to do good depends. In order that it may be the better understood, it is to be borne in mind, to bring about real competition—the life of improvement—liberal premiums must be offered to those who excel; and that the list of premiums must, necessarily, be adopted and published several months before the holding of the Fair, that exhibitors may be attracted to it. It is then apparent to your Honorable Body, that the means of the Society for offering and paying the premiums, are always prospective merely—that they are, in truth, to be made of the sums expected to be received at the approaching Fair for the fees for membership and the tolls from visitors. Consequently, a deficiency of those tolls, from any of the causes before alluded to, leaves the Society destitute of a fund to comply with its engagements, and disappoints competitors. In such an event, further attendance of the public, either as exhibitors or visitors, could not reasonably be expected; and the dissolution of the Society, or, at all events, the loss of all its attendant benefits, would almost certainly follow—a result, in the opinion of your memorialists, seriously to be deplored. The Fairs held during the last two years, have given much satisfaction to the public, and been productive, as it is thought, of much good to Agriculture and its kindred vocations. Indeed, your memorialists

fully believe, that the Society, if it can be kept on foot, will in future years, be more extensively useful by encouraging and improving the Agriculture of North Carolina; introducing and extending the cultivation of choice varieties of fruits to which our diversified soil and climate are so congenial; causing the introduction and rearing of improved breeds of horses, cattle, sheep and swine, and the rearing of domestic fowls; the manufacture at home of the best kinds of agricultural implements, so necessary to the convenient and profitable pursuit of farming and so very important to the artisans who make such implements; the encouragement of manufactures generally within our borders, and especially of household manufactures.

Your Honorable Body, composed chiefly of persons engaged more or less directly in agriculture, and, at all events, representing constituencies composed of large majorities of practical planters and farmers and mechanics, whose labors are subservient to the profit of agriculture will, as your memorialists suppose, sympathise with those interests and pursuits, and think them worthy of your consideration, protection and patronage, and be ready to bestow such bounty on them as may be adequate for their encouragement. If your Honorable Body should thus regard those great interests of your constituents, your memorialists presume to express, as they entertain, the belief, that as a practical instrument, through which the legislative patronage and bounty may be dispersed to the agriculture of the State and its kindred arts, none better exists than the State Agricultural Society, if it should please the Legislature to insure its existence and operations by such a permanent or annual endowment, for a reasonable period, as may seem to your Honorable Body requisite for those purposes. It is beyond controversy, that some *certain* fund, for use from year to year, is absolutely necessary to preserve the existence of the Society and enable it to discharge its functions usefully to the public. To some extent, such a fund may be counted on from individual contributions. But it cannot be expected that even the most public spirited private citizens can be induced every year through a long series

of years to contribute a fund to meet the proper expenditures of a Society embracing the whole State. Hence, your memorialists feel assured that a provision from the Public Treasury is indispensable to the certain continuance of the Society; and they entertain a confident hope, that it will please your Honorable Body to make such appropriations as may seem meet and adequate in the premises. And your memorialists will ever pray, &c.

THOMAS RUFFIN,
EDWARD A. CRUDUP,
ROBERT A. HAMILTON,
FREDERICK HILL,
J. W. NORWOOD.

Mr. Wilson W. Whitaker moved that a clause be added to the memorial specifying the sum asked to be appropriated by the Legislature, to be two thousand dollars.

Hon. D. M. Barringer was in favor of the application, and hoped help would be given; but he was opposed to the motion of his friend (Mr. Whitaker.) He thought it best to have it just as it had been presented by the Committee. The matter would be referred to the Committee on Agriculture and the amount of aid proper to be given, would be more properly a subject for their consideration; and a request for a particular amount, by this body, might tend to embarrass their action.

The President thought it would be best to leave it as the Committee had presented it. It would be more respectful, and stating a definite sum would be too much like sturdy begging.

Mr. Whitaker only desired to ascertain the sense of the society, as to what they deemed necessary for the success of their operations.

The question was then taken upon Mr. Whitaker's motion, and decided in the negative.

Mr. Clarke, of Edgecombe, and Mr. Smith, of Halifax, were appointed a committee to present the memorial to the Legislature.

Dr. Crudup stated that no premium list had yet been prepared. It had been delayed already too long for the want of funds, to embrace some important branches of agriculture. He alluded particularly to the best method of raising wheat, the season for preparing ground and sowing hav-

ing already passed. And a leading object of this meeting was to devise some plan of raising a premium fund. Virginia offered a premium list in encouragement of her industrial interests of \$8,000; New-York and other States had shown a similar liberality; whilst ours had not been greater than \$1,500. Unless we could have a solid basis on which to found a premium list, we should be crippled and defeated in our objects.

Mr. Smith, of Halifax, thought the society should indicate to the Legislature what amount it thought necessary; and moved that the committee be instructed to ask for \$2,000.

The President stated that the committee thought that sum indispensably necessary.

Mr. Bridgers, of Edgecombe, moved to amend the motion by substituting \$5,000, in the place of 2,000. He thought that was not too much; but if the Legislature regarded the sum too large, they could then grant such sum, as, in their wisdom, they might think proper.

The motion of Mr. Bridgers was negatived.

Mr. Smith then modified his resolution so as to ask the Legislature for \$2,000 a year, provided the Society raise a like amount.

Mr. Norwood moved to amend the resolution, by fixing the sum at \$2,500.

Mr. Clarke, of Edgecombe, thought it best to leave the sum blank as suggested by his friend from Cabarrus (Mr. Barringer.) By specifying a definite sum, we might ask for less than we can get, and might embarrass the friends of our cause in the Legislature.

Mr. Mebane, of Alamance, thought it best to leave the matter to this committee, without any positive instructions.

Mr. Whitaker thought, from what had occurred, that it was right to come to some conclusion as to the amount. There appeared to be a considerable difference among themselves; and hence it appeared proper that the vote should be taken.

Mr. Barringer again addressed the Society. If we asked for too much (\$5,000) he was very sure we should get nothing; but by asking for a moderate sum, or leaving the amount to the discretion and liberality of the Legislature, he was confident we should get something.

Mr. Rayner made some remarks touching the term of the appropriation sought from the Legislature, and expressed the opinion that that body would be more likely to make it for two years, than for a longer time—renewing it from time to time as might be deemed requisite and expedient.

Mr. Norwood's amendment was adopted.

The question then recurring on the original motion of Mr. Smith, was decided in the affirmative.

Mr. Rayner expressed the opinion, that if we could get the members of the Legislature to attend our meetings, and let them understand the objects we are at, they would be induced to unite themselves to our association, and the very object we have been laboring at for the last hour will be secured. Many of them think this is a Wake county concern. When they see and learn that it is a great and important *State* affair—when they see and know the wide scope of our objects, embracing the Agricultural, Mechanical, Manufacturing and Mining interests of the *whole* State, they will come forward and give us their aid.

Mr. Rayner concluded his remarks, by offering the following resolutions, viz :

Resolved, That Mr. Wilson W. Whitaker be requested to ask of the House of Commons the use of the Commons Hall on to-morrow afternoon, for the meeting of the State Agricultural Society, at 4 o'clock, with a request that the members of the General Assembly will attend and give us their assistance in promoting the cause of Agriculture.

Resolved, That the President appoint two members of the Senate, and three members in the House of Commons, to request such members of the two Houses, or any other gentleman in the City, as they may think proper, to attend and deliver addresses before the Society to-morrow afternoon.

Mr. Barringer was afraid the members would not be induced to attend, and possibly might not grant the use of their Hall, as they were now so deeply engaged in the business of the Session. He was sorry to say that it was after several efforts that they could get the House to adjourn in time for this meeting, and he thought

it might be better for his friend to request the use of the Senate Chamber.

Mr. Clarke said, if the House would not grant the use of their Hall, he would promise the Senate Chamber to the Society at any hour they might choose to occupy it.

After some further conversation, the question was taken on Mr. Rayner's resolutions, and decided in the affirmative, and the following gentlemen were appointed the committee under the same, to wit : Messrs. Rayner and Cunningham, of the Senate ; and Messrs. Hill and Long, of Caswell, and Smith, of Halifax, of the Commons.

Dr. Crudup called the attention of the Society to the condition of the Fair Grounds. The land was donated to the Institution by the City of Raleigh, and he understood the Commissioners were ready to make the deed at any time. At a previous meeting a committee was appointed to attend to the matter ; but it was not known, as they had made no report, whether they had done so or not. He therefore moved that a committee of three be appointed by the Chair, to look into the title of the Fair Ground, and if the deed has not already been given, to secure it.

Gov. Manly, Dr. Crudup and B. F. Moore, Esq., were appointed said committee.

On motion of Mr. Cunningham, the Society adjourned until to-morrow 4 o'clock, P. M.

COMMONS HALL, Jan. 13, 4. P. M. 1855.

The State Agricultural Society met pursuant to adjournment.

The President, upon taking the Chair, remarked that an opportunity was then offered to gentlemen present who were not members, to join the Society, as the Treasurer was at the Secretary's desk, and would receive their names and initiation fees. Whereupon the following gentlemen appeared and became members, viz :

Hon. David Outlaw, of Bertie ; Hon. Asa Biggs, of Martin ; and Messrs. A. H. Caldwell, of Rowan ; Wm. Eaton, Jr., of Warren ; James Banks, of Fayetteville ; and Benjamin I. Howze, of Chatham.

At the request of Mr. Rayner, the President explained, in a very clear and forcible manner, the objects of the meeting. This Institution, he

said, was not a local one—it was general, in embracing the agricultural interests of the whole State. It had its origin in the patriotism and public spirit of 17 gentlemen who met in this City, from different sections of the State, two years ago. To give encouragement to their efforts, the citizens of Wake and Raleigh offered them grounds and the improvements for the purpose of an annual Fair, for exhibition of samples of improvement in the productions of the earth, in agricultural and mechanical implements, in articles of domestic manufacture, and in domestic animals. The great purposes of the Fair were to lead to the reclaiming and fertilizing our poor exhausted fields and improving our lands generally, by adopting the best method of making and applying manures, of ditching, draining and cultivating the soil; to impart information and stimulate effort in rearing and taking care of stock; to add to our crops of wheat, oats, rye, rice, corn, cotton, tobacco, &c.; to improve the method of getting turpentine and of procuring the spirits; to advance the mining interests; to develop the vast mineral resources of the State and to impart and improve every species of the valuable fruits. This, he said, was to be effected in two ways—the one by offering rewards of honor and pecuniary value to successful competitors; the other in the advantage of bringing all our citizens often together, communicating mutual instruction, arousing the zeal and energies of all, and making them think and feel and act alike, in the great work of individual and State improvement. Another object, he stated, was to encourage a home agricultural paper, which should be well supported, to make the best selections from the various agricultural works from abroad, and give the experience of the skilful and enterprising agriculturists of our own State. The honorable President then proceeded to adduce instances showing the good effects of the Institution. He said, a gentleman, (Mr. Whitaker,) a member of the House of Commons from this county, one of the committee at the first Fair to examine implements, and who was also on the same committee at the second, had expressed to him his astonishment at the great increase and improvement

in the articles of mechanical skill and industry on exhibition at the latter over the former. Mr. W., he believed, was in the House, and was requested to say if he had not understood him correctly. Mr. W. replied he had. The President then proceeded to comment upon the fact, that Mr. Sloan, of Guilford, a very enterprising and intelligent farmer, had been induced to purchase in New-York an improved mowing machine which mowed five acres in two hours, and the hay was almost ready at night to be hauled to his barn. Thus was the work of five good mowers, and five other men to assist, for a whole day, accomplished by this labor saving machine in two hours! How, he asked, were we to get such implements, unless we first knew their importance and then their existence? It was the province of the Fair and of the Press to impart this knowledge, and these could not be expected to exist by private enterprise alone. He next alluded to the improvement in fruits, and paid a handsome tribute to Messrs. Joshua and Thomas Lindley, who are extensively and successfully engaged in the raising of fruit trees, and said he believed they had, by their own private enterprise, brought out the finest collection of peaches in the world. He spoke also in high terms of their fine apples, and remarked upon the advantages we shall have in sending these fruits to New-York two months before their ripen, the high prices they would command in that market, their relative value to flour; and their importance, when the cereals fail, in contributing to supply the poor with good and wholesome food. The foregoing, he said, were objects of our encouragement. And this encouragement must be given in the shape of premiums. The funds for these must be raised by the fees and dues of members and receipts at the gate; but this would be inadequate, and one object of our meeting was to ask aid from the Legislature. This, he repeated, was indispensably necessary to encourage all branches of industry, the advantages of which he here enumerated.

Our own mechanics, if properly encouraged, (he said) will equal in skill, as they do in intelligence and industry, any in the world.

In speaking of sheep husbandry, he alluded to his own success in raising that profitable animal, and promised any gentleman present, who would come to dine with him any day in the year, he would give him a dish of good mutton. He concluded by remarking that he had thought it was his province to state facts, and leave the judgment of his hearers to act without any meretricious appliances. He had, indeed, in this matter a zeal—he would not say a holy zeal, but that which was next kin to it; for the encouragement of such improvements as had been alluded to, was next to the advancement of our holy religion. All recollected, whose heads were grey as his own, our having, in former times, to get out our wheat with flails, or by the dirty method of trampling it out with horses.

What improvements have we now and what blessing to mankind are these improvements! He then briefly, but happily alluded to the *material* aid, as the phrase now is, which other states, as a noble example to us, have given to those improvements. In Georgia, they have a State Society, supported mainly by the public treasury. In Virginia, where they have not more zeal than we have—though they talk—breathe more—they have three Societies. One as a permanent endowment of \$60,000. Another, he regretted to say, had attached to it a respectable portion of our own citizens, who, he thought, would do better to give their influence and means to their own State; and was about expending a large fund, (which he thought was useless) on a model farm. He thought the money would do more good distributed in premiums. All this, however, was founded in the right spirit, and indicated to us our duty.

HON. WILLIAM A. GRAHAM was next called out, and his remarks were highly entertaining and encouraging, and it is regretted that but a meagre sketch of them, as of the very able and patriotic addresses of other gentlemen, can be given. Gov. Graham commenced by saying, he was a very poor farmer, and desired to become better. He had been so situated that he had not been able heretofore to attend this Association, but no one had looked upon its progress

with greater interest than he had. He believed we had the elements of a great and flourishing Society. We had now 900,000 inhabitants, and the materials to make a great agricultural State. This was the great pursuit of our people; and he hoped by our united effort these resources would be brought out. The time was when this work appeared discouraging, which he showed by alluding to the vast extent of our territory and the difficulties of getting to market: but the work of improvement, giving to the different sections of the State facilities for the transportation of produce, had commenced, was advancing, and he hoped by our next annual meeting the citizens of the West, 150 miles off, would be enabled to breakfast at home and dine here. Similar expedition had already been effected. The citizens of Wilmington could now dine at home and take their suppers in this city. Those means of inter-communication would bring our people together and make us a united and harmonious people. To love our country, as remarked by Burke, we must make it lovely. Ours is already so, in many respects—in scenery, climate, healthfulness, the abundance and diversity of its productions, &c.—but our object was to make it so by improvements; and the energetic operations of the State Agricultural Society, would contribute largely to advance important branches of these improvements. He would therefore give it his cordial support.

HON. ASA BIGGS being called upon, favored the Society with an interesting and patriotic address. He said he could not hope, in an association of this kind, to throw any light—he was no farmer—his attention had been turned to other subjects; but on all occasions, either at home or abroad, he had never failed to give his influence to the cause of agricultural improvement. He then proceeded to give the progress of the work in the county (Martin) from which he came. They had a county Society, of which he was a member; and they made an exhibition at the last Fair equal to any in the State. They are doing great good in that part of the country. The same result would flow from the State Society. He had not heretofore been able to be-

come a member, but he had urged his friends to attend and to take an agricultural journal, and many were now circulated among them. It was out of his power to express the idea he had of the importance of this movement, which he hoped would receive every necessary encouragement. The President had alluded to the turpentine business, and the mode of getting the spirits. This had been detrimental in the county; but it was now giving out and the people were turning their attention more to agriculture. He believed the piney woods, and the sandy lands there were susceptible of improvement and capable of producing cotton and the grains almost equal to the river low grounds, which were subject to overflow. They were draining those lands, and collecting astonishing amounts of manure, and succeeding well.

WM. EATON, JR., Esq., of Warren, being called upon, said, it was once remarked by a great man, Daniel Webster, of Massachusetts, that agriculture was the lion of America, and he never said anything in his life more just or more true. Ours is the great agricultural power of the world. Great Britain, France and Russia are now seeking to gather laurels in the iron harvest of the field, but ours are the peaceful triumphs of the plough; and I contemplate with more pride these fruits of the victorious enterprise of my countrymen, than an ancient Roman did the trophies borne by the legions of the republic, when they returned to Italy clad with the spoils of conquered nations, and of captive kings. We are principally a nation of agriculturists. North Carolina is decidedly and emphatically an agricultural State, as much so as any State in the Union. Throughout our whole country, the employment of the planter is a favorite one, and is deservedly held in high estimation. Health and longevity; peace, plenty and contentment; an ardent patriotism, a manly independence, and a generous hospitality, are associated in the mind of an American citizen, with green fields and waving harvests. The poet has sung the pleasures of rural life, and has drawn from its scenes his most beautiful pictures, and his brightest imagery, and the philosopher has enjoyed with heartfelt satisfaction its calm and tranquil de-

lights. The greatest men of America have not deemed the pursuits of agriculture beneath them, and the chief magistrates of the republic have retired from their exalted station to spend the evening of life among rural scenes and the soft charms of cultivated nature. In the opinion of the wise and good of every age and every land, the pursuits of the husbandman are in a high degree honorable and useful, and eminently favorable to human virtue and happiness.

I should be false to my country at large, false to my State, and false to the county of Warren which I have the honor to represent in the Senate, if I did not, as a member of this General Assembly, do every thing in my power to advance the interests of agriculture. I look forward to the dawning of a brighter day in North Carolina. I look forward to the day when our exhausted fields of broomstraw and bramble shall be fertilized, and made to reward the labors of the husbandman and when the rich and lovely valleys of the Catawba, the Yadkin, the Cape Fear, the Neuse, the Roanoke, and the Chowan shall teem with abundance; shall yield in profusion the luxuries and delicacies of life as well as its necessities and comforts; and shall sustain a numerous, a happy and an intelligent population. A deep and lively interest has been recently manifested in the cause of internal improvement. Railroads and other facilities of communication are certainly of great and inestimable value; but unless we improve the soil, and increase the productive capabilities of the country, North Carolina can never become a very prosperous State, nor her people comfortable and happy, although commerce may spread out its white sails on her coast, and the locomotive may outrun the steeds of the turf on its own pathway from the ocean to the mountains.

The Hon. D. M. BARRINGER being called upon, said the call was wholly unexpected, and he should refuse to answer it if he did not fear an erroneous inference might be drawn from his silence, unfavorable to a cause which he most heartily approved. He was a lawyer and had no great practical experience in agriculture; yet he was willing to acknowledge that he had followed the plough, and was among those who were

not ashamed for it to be known that we are working men. The great secret of success in these institutions, is the competitions they raise, and their tendency to bring us together and make us North Carolinians in deed and in truth, as we are by birth and in name. He vividly portrayed the great and substantial improvements which had been made in the State of Georgia through their instrumentality. He then proceeded to sustain the proposition that Internal and Agricultural Improvements go together; they help and depend upon each other; in the course of which he referred to the marked effect of Internal Improvements in the valley of the Catawba. On his return home, after five years absence, he had seen, under its influence, agricultural products doubled, and more: Land that had produced 800 pounds of cotton, now produced 1800 pounds; lands that had produced 12 bushels of wheat, now produced 30 bushels. This was owing to the correlative influence of Internal Improvements and Agricultural Improvements upon each other. He concurred with the President, in his remarks not only as to the cereals, but the fruits, stocks, &c. He expressed the belief that Western North Carolina was the best wool growing country in the world; adverted to the steps taken by Napoleon to import improved sheep; he had a large number brought from Spain; and now the best wool produced in France, and it is a source of great profit. By bringing men together here, and by talking over these matters, we increase the desire to improve, and one result will be the establishment of a great wool-growing business in the West. He concurred with the gentleman from Warren that this would be the greatest agricultural country in the world, and North Carolina could be distinguished by the important part she would bear in that honorable vocation.

HON. DAVID OUTLAW, in answer to a call, said the call was as unexpected to him as to the gentleman who had just preceded him. He came there to receive, not to impart instruction. He then proceeded for a few minutes to speak in the happiest, most glowing and eloquent terms, of this important movement. He could not say he had no experience in farming, but his

attention had been turned to other subjects less to his taste. He would rejoice if his duties would allow him to devote his time exclusively to this delightful employment. He regarded the pursuit of agriculture the most virtuous and honorable calling in the world; and he hoped the young men of the country, instead of going into the professions, would follow it. When they see, (said he,) that you, Mr. President, and others whose reputation is not confined to our own State, but extends the length and breadth of the country, are devoting your time and talents to this employment, they will be induced to follow the example; and much good will be accomplished. He concluded by remarking that he was willing to show his regard for the cause, by voting to give it substantial aid.

MR. BANKS, of Cumberland, being loudly called, arose, and, in his peculiar vein of humor and good sense, for a few minutes entertained the meeting. He said the remark was trite, but applicable, that it was dangerous to speak of war in the presence of Hannibal. His situation reminded him of an anecdote of an old Scotch lady, whose sons were taken by Napoleon and chained to other prisoners. When she was informed of their misfortune, she exclaimed, "God pity the man that is chained to my son Jemmy!" He could say, if the Society rested upon the speaker, or any thing he could say, it was in an unfortunate predicament. But the compliment of the call was intended to his county. He wished his friend Elliott, the President of the Cumberland Agricultural Society, was present. He could honor it by making a speech, giving "material aid," or by proofs from his own experience of the success of enlightened, systematic farming. But Cumberland was not strictly an agricultural county. Her pursuits, (which he enumerated,) were diversified, all reciprocally acting upon each other, and giving encouragements to the agriculturist. He gave an amusing account of his early attempts at cultivating the soil, together with his abandonment of it for other pursuits, and expressed the hope that he should finally return to it; for he never knew a Scotchman in his life whatever might be his circumstances or his calling, who did not make

farming his ultimate hope and aim. He hoped the operations of the Society would excite a spirit of enquiry and emulation throughout the State, that would lead to great and lasting improvement. He should be happy to contribute something, however small, to advance the interest and welfare of the good old North State. He had always admired the just and noble sentiment expressed by the late distinguished associate of the President :

"Carolina! Carolina! Heaven's blessing attend her;

"While we live we will cherish, protect and defend her;

"Tho' the scorner may sneer at, and wiflings defame her,

"Yet our hearts swell with gladness whenever we name her."

On motion of Mr. Rayner at the close of this address the Society adjourned, subject to the call of the President.

THOS. J. LEMAY, *Sec'y.*

SPAVIN, ITS NATURE CAUSE. SYMPTOMS AND TREATMENT

By GEO. H. DAND, Veterinary Surgeon, Boston, Mass.

MR. EDITOR:—In answer to your inquiry, as to the nature and curability of spavin, &c., I propose to offer a few remarks on the *nature, cause, symptoms, treatment, and curability* of several diseases peculiar to the bony structure, of horses, so that you, as well as the reader, may have an opportunity of judging for yourselves, as to the nature and curability of the same. I am aware that there are hundreds of men in this, as well as in other countries, *empirics*, whose whole practice is a series of blunders linked with barbarity; and who are continually heralding to the world their successful cures of spavin, and other incurable diseases! and in consequence it is not always an easy matter to convince every man of the incurability of a certain disease, when so much evidence is offered to the contrary.

But the only evidence worth receiving, is that furnished by the scientific practitioners of the veterinary art, who have, by a long course of

study and practice, made themselves familiar with anatomy, physiology, and the pathological changes that occur in the hock—which is the seat of spavin—during the progress and termination of the morbid phenomena. Such is the kind of evidence I shall attempt to offer.

Let the reader first understand that there is a sort of irregular, or *incomplete* spavin, which may exist without accompanying lameness. It is found just beneath the bones composing the hock, in the form of a knotty tumor, technically called *exostosis*; in common language a "*jack*." In such case the mechanism of the joint is not involved, hence, absence of lameness. But the animal may, from over work, or sprain, become lame in a joint remote from this; the owner, or attendant not possessing the requisite skill to discover the precise seat, finds a tumor at the point indicated, and immediately pronounces the horse spavined, and this serves as an excuse for adding to the poor brute's sufferings the torture of fire, or blister; during the rest which necessarily follows the application of one or the other, the original lameness disappears, and this furnishes our illustration of one of the boasted cures of spavin, which in reality never existed.

Let us now consider the nature of the spavin. And in order to comprehend it, the reader should know, that the joints of the hock are composed of several bones, two of which form the joint proper, the remainder, eight in number, are concerned in the articulation and composition of the same. Between each bone is inserted a cartilaginous cushion for the purpose of warding off concussion, and thus preventing injury to the bones; which would otherwise occur.—These bones have all their proper capsular membranes, which separate one from the other, making them distinctive points. A *synovia* membrane pervading the whole, furnishes *synovia* ("joint oil") which successfully guards against friction.

Spavin generally originates in inflammation of the *periosteal* tissues, (membranes proper to all bones—their external covering) or else, in the ligamentary, or cartilaginous structures, contiguous, or within the joints. A high grade of inflammatory action, pervading for some time

causes absorption of the cartilages between the small bones, they become consolidated and immovable. This cartilage being changed into bone, cannot possibly be restored, and is therefore incurable.

Spavin, having in this manner, an internal origin, is not perceptible; consequently, some persons are unwilling to admit its existence until they can both see and feel it. If it shall commence externally, (on the inside of the hock,) in the form of encrustation, termed exostosis which is very often the case, all doubt is at an end. In plain language, spavin consists in a loss of motion, between parts that were once moveable, and may exist with or without bony tumor.

If a student were asked the question, What constitutes spavin? He would answer, "*Anchylosis* and *exostosis* of the tarsal, (hock,) bone." Ask him if it can be cured, and he utters a decided—"No."

The malady is similar to that occurring among children, known as *hip disease*, when the head of the thigh bone unites to the pelvis; and no one pretends, at least never succeeds, in effecting a radical cure. But, as regards the horse, the disease is more complicated, because a greater number of bones are involved; yet in effect, the disease is less serious, because it does not prevent flexion and extension of the joint proper.

In a very brief manner, I have now considered the pathology, or nature of spavin, much interesting matter, (and really valuable to students,) is necessarily omitted, in order to confine this article within the limits prescribed by journalists.

Now as regards the Cause of Spavin:—Its pathology, as we observe, demonstrates inflammation of one or more tissues proper to the point, which is produced by overwork, sprain or concussion, the tumor and transformation of the cartilages into bony substances, always being preceded by lameness, indicates injuries of this character, yet they are not in all cases operative; for some of our truck horses, especially those used in shafts, are often compelled to perform extraordinary feats of strength, that would in

ordinary horses induce ligamentary lameness, ultimately resulting in spavin; yet they are remarkably free from it, the reason is they are free from predisposition.

It is a fact, well known to the profession, that almost all spavined horses labor under, either, *local* or *constitutional* predisposition.

Local predisposition, is determined by a short pointed hock, lengthy *canon*, and upright pasternus. This is the kind of hock that is most subject to strain, while galloping, or trotting fast on hard pavements.

Constitutional predisposition, exists in *breed*, and is inherited from sire or dam. A spavined mare transmits the disease *directly*, of which we have evidence in colts that have never been *broke*. But in the majority of cases, spavins are *indirectly* transmitted in the form of a weak fragile, bony structure, which is prone to throw out *ossseous* (bony) effusion. Such animals are often termed overgrown, from the fact that their frames have outgrown their strength; consequently, they are unable to bear heavy burthens, without strain or injury to the joints. The bones of horses predisposed to *ossific effusion*, in the form of *spavin*, *splint* and *ringbone*, are remarkably light, porous and brittle; and on inspecting the same, we wonder how they have supported even the carcass of the animal.

The reader has probably noticed in cattle large bony tumors under the jaw, called *osteosarcoma*, which finally ends in *caries*, (death of the bone,) others, located on the hock and on various parts of the shaft bones; these appearing without any apparent cause, illustrates what I mean by *ossific diathesis*, or constitutional predisposition.

We may safely conclude, therefore, that spavin originates from predisposing and exciting causes, acting conjointly, or otherwise.

Symptoms of Spavin:—These vary according to the nature and intensity of the attack; yet there are some, always *present*, so that a man of ordinary observation can readily discover the seat of lameness.

The First, is:—Heat and tenderness on the inside of the hock.

Secondly:—Inability to flex the hock with

perfect freedom, the act being accompanied with a sort of "*catching up*," or spring-halt motion; *spring-halt* is a remarkable feature of spavin, and it has been noticed by several writers, SHAKESPEARE, for example, thus refers to it:—

"One would take it,
That never saw them pace before, the *spavin*,
And *spring-halt* reigned among 'em."

Thirdly:—The animal starts stiff and lame "planting" his toe on the ground, rather than the heels; he improves, however, after a short drive.

Fourthly:—The above symptom connected with a tumor on the inside of a hock, in the region of the small tarsal bones, excludes all doubt. Yet the tumor as I have just observed is not necessary to make out a case of what is technically called *inter-articular* spavin.

Treatment of Spavin:—No man can possibly succeed in curing spavin. We may palliate—relieve lameness—and hasten *anchylosis* (stiff joint) and render the subject useful for certain purposes, but there will always exist a certain amount of stiffness about the joint, which is considered *unsoundness*, and a hard trot will often induce temporary lameness.

In the treatment of spavin, we borrow an illustration from Nature—the *best and wisest of doctors*—she strengthens a weak joint, by making it solid and unyielding, and this must be our object in its treatment.

Medical men always have this object in view, viz: to produce *anchylosis*, to hasten ossification, and render the *sensible* tissues *insensible*.

In the early, or inflammatory stage, rest, and cooling lotions are indicated. In the latter stage, counter-irritants; such as preparations of cantharides, &c., are generally resorted to.

Finally:—The reader, if he be any way interested in the welfare of "live stock," will probably appreciate the value of *correct* information regarding the nature and cause of disease. For in the first place, it aims a death blow at ignorance, quackery, and cruelty; practised very frequently under guise of Science; between which, however, there exists less affinity than between oil and water.

In the next place, it enables him to adopt preventives, by which the chances of disease are lessened.

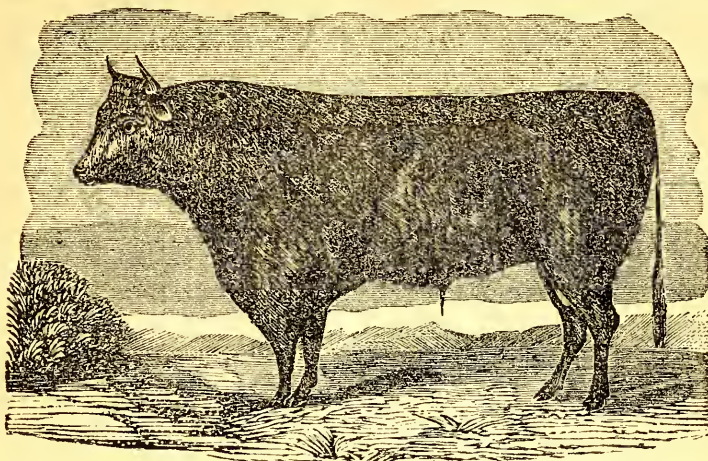
It teaches him that physical defects are as certainly transmitted as good points, and although bad qualities are not always *directly* transmitted, yet the *day of reckoning* appears in a future generation, just so surely as *like begets like*.

In a future communication, I shall discuss other ossific diseases peculiar to horses.

WASTE MANURE.—The *Maine Farmer* felicitously says: "When farmers see the crows pulling up and carrying off their corn, or the rats get in and destroy their grain or potatoes, they at once realise their loss, and immediately take measures to stop and prevent it. But many of them lose more corn, more grain and potatoes, by neglecting to protect and preserve their barn yard and compost heaps, than is annually destroyed by all the crows, and rats, and other *varmints* in the State."

KITCHEN DRAINS.—Have the kindness to say to your readers that there are many advantages in a *blind drain*, as a substitute for an *open sink gutter*, among which may be noticed the following:

A blind drain, laid after the usual style of stone or tile drains, 2 ft. deep, does not emit the offensive odor of the open gutter. It does not form a harbor for flies, &c., which are driven into the house at the approach of a summer shower or the coming on of cool nights. It may be extended close to your kitchen door, or made to connect with your sink, thereby saving labor in carrying heavy tubs or pails of waste water, the usual wearing distance from the door. The blind drain may be continued to your compost heap by which means all the valuable wash which is too frequently lost, may be turned to good account and made to pay annually more than the interest, and sometimes more than the entire expense of the work. The open sink gutter is one of the greatest nuisances around a farmhouse, while the covered drain, with a barrel at the upper end, having only the lower head in, and that perforated with holes 3-8 in. in diameter, is a cheap and durable substitute and wholly unobjectionable. Such at least is the experience of one who tried it.—*Country Gentleman*



PORTRAIT OF A DEVON BULL.

Points of the Short-Horn Bull.

"As regards the male animal, I have only to remark, that the points desirable in the female are generally so in the male, but must of course, be attended by that masculine character which is inseparable from a strong, vigorous constitution. Even a certain degree of coarseness is admissible, but then it must be so exclusively masculine description as never to be seen in the females of his paternity.

In contra-distinction to the cows, the head of the bull, may be shorter, the frontal-bone broader, and the occipital flat and strouger, that it may receive and sustain the horn—and this latter may be excused if a little heavy at the base, so that its upward form, its quality and color be right. Neither is the looseness of the skin, attached to, and depending from the under jaw, to be deemed other than a feature of the sex, *provided* it is not extended beyond the bone, but leaves the gullet and throat clean and free from dewlap.

The upper portion of the neck should be full and muscular, for it is an indication of strength, power and constitution. The spine should be strong, the bones of the loin long and broad, and the whole muscular system wide and thoroughly developed over the entire frame."

North Devons---The Cow.

Purity of Blood, as traced back satisfactorily to importations of both dam and sire, from known English breeders, or as found in the lately established Herd-Book for North Devons.

The Head should be small, lean and bony, the forehead wide, flat, or from a fullness of the frontal bone over the eyes, somewhat dishing; the face straight; the muzzle fine; the nostrils open; the lips thin, and rather flat.

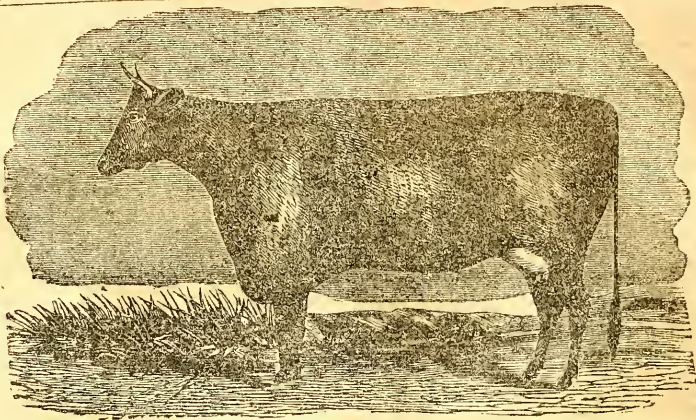
The Nose of a light delicate color, it being a test of pure blood.

The Eye should be bright, prominent and clear, but mild and gentle in its expression, as indicative of that spirited, but tractable disposition so necessary to cattle that must bear the yoke; a beautiful orange-colored ring should invariably surround the eye.

The Ear—thin; of a rich orange-color within, of medium size, with a quick and ready movement, expressive of attention.

The Horns—light, tapering, of a waxy color towards the extremity, and gay, as well as symmetrically placed on the head; the occipital bone, narrow, thus bringing the base of the horns nearer together.

The Neck of medium length, somewhat light in substance, very clean, and pretty well set up on the shoulder.



PORTRAIT OF A NORTH DEVON COW.

The Chest—deep and round, carrying its fullness well back of the elbows, thus affording, by the aid of a springing rib, abundant internal room for the action of the thoracic viscera, the heart and lungs, and that too without an *extreme* width forward, and between the points of the shoulders, which might interfere with the action of the animal.

The Brisket—it being assumed that it adds nothing to the internal capacity of the chest, must not overload the breast, but be sufficiently developed to guarantee a feeding property, attended with a full proportion of fatty secretion.

The Shoulder is, in this breed, a very beautiful and important point, and should in a degree approximate in form to that of the horse. It should take a more sloping position than is found in most other breeds, with its points less projecting, and angular, and the blade bone more curved, thus blending with, and forming a fine wither, rising a little above the level line of the back.

The Crops full and even, forming a true line with the somewhat rising shoulder, and level back, without either drop or hollow.

Back, Loin, and Hips, broad and wide, running on a level with the setting on of the tail.

The Rumps—lying broad apart, high, and well covered.

The Pelvis—wide.

The Twist—full and broad.

The Quarters long and thoroughly filled up between the hooks, or hip bones and the rumps; with a good muscular development down the thigh to the hocks.

The Flank—moderately deep, full and mellow in proportion to condition.

The Legs not too short, and standing as square, and straight behind, as may be compatible with activity. The bone quite small below the hock and knee; the sinews large and clean, with the fore-arm well developed.

The Carcass round and straight; its posterior ribs almost circular, extending well back, and springing horizontally from the vertebra, giving in fact, much greater capacity than would at first appear.

The Tail, at its junction, level with the back, long very slender in its cord, and finishing with a tassel of white hair.

The Color, in its shades and degrees is more or less governed by fashion; but in the Devon is always red. Formerly a rich blood red was the favorite color, and a test of purity, and now a somewhat lighter color is in vogue, approaching rather nearer to that of the *South Devon*, which is a larger, coarser, stronger animal. In all cases the color grows lighter round the muzzle, while a dark mahogany color, verging almost to a black, and growing yet darker about the head, always was a very questionable color for a *true North Devon*, more especially when accompanied by a dark nose.

The Hair should be short, thick and fine ; and if showing on its surface a fine curl, or ripple, it looks richer, and is supposed to indicate a hardier and more thrifty animal.

The Udder should be such as will afford the best promise of capacity and product.

Carriage.—The Devons having from their excellence in the yoke, another destiny besides that of the butcher's block, it is all important that the animals carriage should indicate as much, but to obtain this, something of the heavy, inert, squarely moulded frame of the merely beefing animal must be relinquished for a lighter and more active frame.

Quality.—The skin elastic, flexible, and not too thin, resting on a rich mellow yielding substance between it and the muscle.

These general remarks will be found applicable to Devon cows, when bred of pure blood."

—*Northern Farmer.*

HINTS FOR THE FARMER.

SINK WASH.—Arrange so that all the water from the sink and wash room may be conveyed to the compost heap ; also the urine made on the premises, and the rich liquid from the privy. From twenty to twenty-five loads of excellent manure may be made in this way, annually.

BEDDING HORSES.—See that your horses are supplied with clean, fresh bedding every night. After laboring hard all day, on the road or in the fields, this will be extremely grateful to their weary limbs, Give them a hard floor to stand on.

SAND YOUR STALLS.—Let fresh clean sand be sprinkled every day over the floors of your tie-ups. This will keep the animals clean, and prevent their being attacked by vermin. Every morning, remove all the excrement to the manure shed, and throw over it a few handfuls of gypsum or pulverised charcoal.

CHARCOAL FOR HOGS.—Provide a trough or other suitable receptacle, fill it with charcoal and place it in your hog pen. Few articles that can be administered to swine, will prove more beneficial than this.

SALT FOR HORSES.—Deposit a lump of rock salt in your horse's manger, and allow him to have free access to it.

FENCE POSTS.—Char your fence posts to a coal before settling, and set them top down.—You will find these to be excellent preventions against rot. Posts thus treated, will last much longer than if set in the ordinary way.

GATES are much handier, and far more economical in the long run, than bars. At every entrance, set a good stone post firmly in the soil and append thereto a light but strong gate.—With the proper materials and tools, almost any person can construct a good and efficient gate, and hang it. It should also be protected from the weather by a coat of paint.

STONE STEPS will be found much more economical than wooden ones. Place a set at every door, where you are not particularly anxious about the "ornamental." They may cost you a trifle more at first, but they will be the cheapest in the end. Let a good scraper be firmly inserted at one end.—*Germantown Telegraph.*

HOW MUCH LIME DO SOILS NEED?—Professor Emmons, in his Report on the Geological survey of North Carolina, says :—"If we may appeal to observation and experiment, it is established that a small per centage of lime only is necessary to the highest degree of fertility : and yet this small per centage *is necessary.*—If there is present one half of one per cent., it seems to be sufficient : for it is rare to find a larger quantity in productive soils." Prof. E. is a chemist and geologist of long experience, and was one of the first—perhaps the first—to ascertain that some of the most productive soils for wheat in Western New York contain comparatively little lime.—*Ohio Farmer.*

FRUIT TREES.—It is a theory among fruit growers that the peach is destroyed by cold when the thermometer reaches 10 degrees below zero, and that this tree cannot live when the temperature is at that point ; but, an examination of the trees in the western part of New York State, fails to show that any injury has yet been received.



The Carolina Cultivator.

RALEIGH, MARCH, 1855.

TERMS.

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Subscriptions may begin with any number; but when not otherwise directed, the back numbers of the current volume will be sent.

ADVERTISEMENTS.

A limited number will be inserted at the following rates: For each square of twelve lines, first insertion, ONE DOLLAR; each continuance, SEVENTY-FIVE CENTS.

INAUGURAL.

In this our first interview with the public, as conductors of *The Carolina Cultivator*, we must ask the privilege usually accorded to those entering upon a new dignity, of delivering an inaugural address. It will not be exactly a maiden effort, as we have on other theatres already learned to face that formidable body, the people; but it is the first opportunity we have enjoyed of defining our position and laying down our platform on the great and important subject of agricultural improvement. We desire, in other words, to call the attention of the farmers, and friends of the farmer's cause in North Carolina, to the objects we have in view, and the plan we propose to follow in the publication of a new monthly magazine devoted especially to the agricultural interest.

Such has been the advance of our people within a few years past in the spirit of improvement, that the circulation among them of agricultural papers has become a general demand which must be supplied, and it must be obvious to all, who will reflect a moment on the subject, that publications adapted to the

soil and climate of the State, are of far more practical value than those adjusted to the peculiar wants of other latitudes. This consideration must suffice to demonstrate the importance of supplying the people of North Carolina with instructive reading in regard to the science and art of agriculture, from sources within their own bounds, and prepared with special reference to their peculiar position.

Entering as we do upon the field of fair competition, we would not presume to arrogate to ourselves a monopoly of the patronage which the farmers of North Carolina owe to agricultural papers published among themselves. We may, however, be permitted to say that we undertake the present enterprise to meet what we believe to be a general demand for a permanent publication of the kind at the capital of the State. We are assured by many of the most respectable and influential friends of the cause of agricultural improvement in North Carolina, that a well-conducted paper, issued from this central point, judiciously adapted to the wants of different sections, established upon a durable basis, will entitle itself to the liberal support of the farming interest in all parts of the State. We propose to do our part. It belongs to the people to say whether the undertaking shall be successful and permanent or not. Certain it is that a larger circulation and *prompt pay* are the only means that can ensure the success of a paper conducted on such moderate terms, and involving so much expense, in advance, on the part of the publisher.

Farmers of North Carolina, you have now an opportunity to secure for yourselves and families a monthly repository of the most useful information on all subjects connected with the practical management of the farm and the household, and a convenient vehicle for your thoughts and suggestions on the same subjects which you may desire to communicate to others. It is our design to fill the *Carolina Cultivator* with a variety of short, pointed, and useful selections, adapted to the seasons, culled from a large number of valuable exchanges; to invite contributions from every quarter, wherever experience may have acquired a

new lesson in the art of cultivation or domestic industry; and in our editorial columns to condense such important additions to our stock of recent information as cannot be otherwise compressed into our limited pages. We will also present our readers with all the more important items of intelligence connected with the general advancement of agricultural knowledge, and endeavor in every proper way to stimulate the industry and enterprise of our fellow citizens.

A few suggestions on the proper use of such a paper must close our remarks. There can never be *thrift* without *pains taking*; therefore let every reader of the *Carolina Cultivator*, carefully mark with a pencil everything each number contains that may impress him as worth remembering, and then lay his copy carefully away in his desk. By the end of the year he will have a respectable pile of 12 numbers, which can be easily bound into a volume, containing not *one dollar's* worth of information merely, but we venture to assert more than *ten times* that much. We would also suggest that it is a good habit "to strike while the iron is hot," and put into practical use all such improvements as are deemed worthy of a trial. It is too common to read, assent, and then *forget*. It does more harm than good for a farmer to read practical lessons for mere amusement. It generates a habit of indifference to improvement which is hard to shake off. Let our readers therefore be punctual in putting every valuable thought which they may find in books and papers on the various branches of agriculture and the kindred arts, into immediate use, and our word for it, they will have the satisfaction at last of witnessing a decided improvement on their own premises and around them.

We now commend our enterprise to the friends of agricultural progress in all parts of North Carolina and the South, and ask for its success nothing but a fair share of the public favor.

OUR FIRST NUMBER.—We issue this our first number as a full *Prospectus* of the *Cultivator*.—The heavy loss we have sustained from our con-

nection with the "Farmer's Journal," will, we hope, present an inducement to a liberal public to patronize the undertaking.

Subscribers to the "Farmer's Journal," who have paid for the current year, will receive the *Cultivator* till the year is out, without further charge. Those who have not paid for the same will please forward the amount promptly to the publisher of the *Cultivator*, who alone is authorized to receive it.

The publisher of the "Carolina Cultivator" will be aided in the *Editorial* department of the paper, by gentlemen fully competent to make it one of the best Agricultural Papers in the country, and also by several able members of the State Agricultural Society, at whose earnest solicitation the work has been undertaken.

CORRESPONDENTS.—Our columns are now fairly open to our friends who may be willing to favor us with the results of their observation and experience, on practical subjects connected with the farming interest. The success of an agricultural paper in North Carolina must depend quite as much upon this kind of co-operation among the farmers, as upon the exertions of those who conduct its publication. We earnestly appeal therefore to the intelligent agriculturists throughout the State, to concentrate their talent and upon our columns, and by frequent contributions to make it worthy of themselves and of the commonwealth. Write *legibly* on *one side* of your paper, and *not too voluminously* at a time, and we promise a respectful attention to all practical communications accompanied by the names of the writers.

OUR TERMS.—We start the CAROLINA CULTIVATOR on terms as low as we possibly can. Nobody ought to dream of paying less for an instructive paper, devoted to the important interest of agriculture. We can assure our friends, however, that so soon as our subscription list may justify it, we intend to increase the amount of reading matter in our columns. The larger our list the cheaper the paper. Let that be well understood, and let every subscriber feel it to be to his own interest to increase its circulation.

ENDORSEMENT.


WHEREAS, The North Carolina State Agricultural Society, at a meeting held in Raleigh, on the 20th of January, 1855, passed the following Resolution:


Resolved—That the Executive Committee be authorized to adopt, as the Organ of the Society, any agricultural periodical published in this State, which they may think proper: and that they be requested to take such steps towards securing subscribers, as in their judgment they may see proper.

And, whereas, William D. Cooke, of Raleigh, late publisher of the "Farmers' Journal," proposes to publish an Agricultural Journal, devoted to the agricultural improvement of the State, to be known by the name of "THE NORTH CAROLINA CULTIVATOR," therefore, we, the undersigned, members of the Executive Committee appointed by the State Agricultural Society, do hereby take pleasure in recommending the said CAROLINA CULTIVATOR to the planters and farmers of North Carolina; judging from Mr. Cooke's past experience in conducting an Agricultural paper, and his well known energy and perseverance, we feel assured that the CAROLINA CULTIVATOR will prove to be worthy the support and patronage of the Agricultural community.


And we do hereby appeal to the Farmers of the State, and all others who feel an interest in the Agricultural Improvement of North Carolina to sustain the CAROLINA CULTIVATOR, and use their influence in procuring subscribers for the same.


WILSON W. WHITAKER,
W. H. JONES,
JAMES F. JORDAN,
JNO. C. PARTRIDGE.

 The friends of agricultural improvement will be gratified to learn that the Legislature, at its late session, provided for an annual appropriation to the N. C. Agricultural Society of \$1,500. This sum is the interest on \$25,000. As the first step taken by our State government towards a substantial support of the cause in which the society is engaged, we hail the act as a significant indication of public and official favor, and welcome it as a liberal, if not an adequate provision.

 Another important act of the Legislature, viewed in its relations to the success of our State Society, was the refusal to incorporate the so-called "Union Agricultural Society of Virginia and North Carolina," the direct tendency of which must necessarily be to hinder that concentration of effort within our own State upon which the beneficial influence of the State society depends.

PROSPECT FOR FRUIT.—As we have had two successive years in which fruit almost entirely failed, there is reason to hope that the present year may be more favorable. We would therefore suggest more than usual attention to the orchard and garden.


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DAGUERREOTYPES OF NATIVE STOCK.—We expect occasionally to embellish our pages by daguerreotypes of fine native stock, promised us for that purpose, by gentlemen of much taste in that line. This is becoming a popular feature in agricultural papers.

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MARL IN FRANKLIN COUNTY.—A Bank of Shell Marl has been discovered on the land of Adolphus G. Jones, Esq., adjoining the town of Louisburg. The bed consists of the pure shell, in a state of disintegration. Its extent is not known. This is the first Marl discovered in Franklin co., and the only bed known above the falls of Tar River, in Edgecombe co.

The Marl is only 9 miles from the R. & G. R. R. It was discovered by deep ploughing on land lately purchased.

SPECIAL NOTICE,

We have issued an edition of 5000 copies of the present number of the CULTIVATOR and send a copy to a large number of persons in the State with the hope that they will be pleased to subscribe for it. Should any one receiving this number, not desire to subscribe, the paper need not be returned, but may be handed to some neighbor who may be glad to take it. All who desire to take the Cultivator will please enclose a One Dollar bill to the Publisher, upon the receipt of which his name will be regularly entered.

 See our list of Club Prices.

BRAHMA POOTRA FOWLS.

Within the last ten years the introduction of superior breeds of fowls into this country has produced a thorough revolution in that important department of domestic economy. The breeding of improved varieties has become the favorite occupation of many tasteful and public spirited gentlemen, whose exertions, we hope, will result in much benefit to the interests of the country. Among those in this region who have distinguished themselves in this species of enterprise, our friend JOHN C. PARTRIDGE, Esq., of this county, stands pre eminent for the success of his efforts. The grounds of Mr. P., in the suburbs of the city, are constantly alive with a gay throng of noble looking birds, many of which are curiosities of size and beauty. His stock was obtained



THE ABOVE CUT REPRESENTS A PAIR OF BRAHMA POOTRA FOWLS, THE PROPERTY OF JNO. C. PARTRIDGE, ESQ., OF THIS CITY.

from Mr. GEORGE SMITH, of Valley Falls, R. I., one of the most enterprising and successful importers and breeders of fowls in the U. S.

Mr. PARTRIDGE's favorite variety of fowls is, we believe, the Brahma Pootra, a short description of which we extract from an article in the *Northern Farmer*:

These fowls were brought from the Brahma Pootra Valley in India, in 1849, by some sailors in an India ship, and were purchased by some New England gentlemen at a great cost. They are generally of a cream white, with penciled neck hackles, and blue black tail, and wing tips. Weight, for best specimens, full grown, from twenty to twenty five pounds per pair! They lay more and larger eggs than any other fowl known, and the most hardy of all the large breeds, more docile in their habits, more beautiful in model, less inclined to ramble, seldom do damage in gar-

dens when admitted unrestrained, and now the most popular breed in the United States. The excitement in regard to this breed during 1853, has been astonishing, and from \$20 to \$100 a pair has been paid freely by hundreds of purchasers. We have sold a few pairs at \$20, all we had, or could obtain, yet we believe that we could have sold one thousand pairs at that, if we had had them. The price of eggs has been \$6 a dozen, and we sold all that twenty pullets laid, at that price, and finally returned about \$300 received for eggs more than we could supply.

Wherever specimens of Brahma Pootras have been seen in this country, they have commanded universal admiration. The testimony in their favor, as a profitable breed is very general, and we are inclined to hope that their introduction into the country will prove highly beneficial to the public.

Sheep Husbandry.

IMPORTANT QUESTIONS ANSWERED.

In answering the inquiries of A. Pickett, of Wisconsin, my desire will be to make my replies concise, if not comprehensive. Words without knowledge are only cumbersome, and logic without testimony is as clouds without rain.

1st. Can sheep of the same breeds be improved in quality of wool and form? if so to what extent?

It is a self-evident truth, that all sheep originated or sprung from the same parents and all the different varieties that exist have been caused by the influence of climate or care in breeding. The sheep of Guinea and Madagascar, in Africa, with their cast of hair; the soft silky fleece of Silurian, the 20 lbs. Hebridean sheep of Scotland, and the Leicester of 300 lbs. all originated from the same family. These differences show the improvement possible both in form and also in quality of wool. To avoid disputes or controversy as to the above, I would call the reader's attention to the manner in which Mr. Bakewell proceeded in forming his noted flock of Bakewell's or Leicesters (American Shepherd, page 117.) Also, to the manner in which the fine Silurian or Saxon fleece was obtained, (vide Charles L. Fleishmann's report, in the Patent Office Report for 1847.) This testimony goes to show that sheep have been improved in form and also in quality of wool. My view is that they are still susceptible of additional improvements, both by the effect of climate and care in breeding.

2d. Does climate affect the quality of wool?

Nature's laws are irresistible; therefore climate has a decided effect both upon the quantity as well as the quality of wool. In their native state in the torrid zone, we see sheep covered with a short stiff hair, whilst those in the frigid zone are covered with fine hair and with a sub covering of soft spiral wool. The same law governs the whole animal kingdom. The Otter, Seal, and Beaver, of the South, have a coarse thin fur, whilst the same animals in a northern latitude, have their double coat, which they

would soon lose if removed to an opposite clime, as did the Thibet Goat that was taken from Thibet to Bengal, (McCulloch's Gazetteer, vol. 2, page 922.) Mr. M. R. Cockrell, Tenn. has a superior flock of fine-wooled sheep; they may be kept on high table land, or their retrograde may not be very perceptible, but let his flock be kept latitude 34°, North, 100 or 1,000 years, and ere that time closed, Nature's laws would predominate and the fleece become thin and of a coarser grade.

3d. Can sheep be acclimated so that all breeds will be equally hard?

Sheep, if first properly protected, may be injured to a Northern or Southern latitude, and become equally hard. The fine sheep of Germany originated from the migratory flocks of Spain, and now have become acclimated to 55° north latitude, and are hardy. The Saxons of New Hampshire are equally as hardy and as well formed as the Merino. As so the Goat of Thibet has recently become naturalized to the climate of France. But writers say it is quite certain from the great difference in climate, that the wool will in no long time lose its most valuable qualities. (McCulloch's Gazetteer, vol. 2, page 922.—American Shepherd, page 421.)

4th Does high feeding improve the fleece in fineness?

The hair of wool being porous, high feeding consequently enlarges or makes it coarser, which is the case in all high fed sheep, but particularly so with those whose food is mostly assimilated to fat, as in mutton sheep. As high feeding enlarges, so the reverse has a tendency to lessen or make it more fine.

5th. Taking all things into account, when is the most proper time to wash and shear sheep in from 35° to 45° north latitude?

Climate being so variable in that range of latitude, no specific day could be determined, but an unerring rule may be fixed from season to season, by observing the growth of vegetation.

I have thus summarily passed over the questions as proposed and now repeat my conclusion.

1st, Sheep can be improved in quality of wool and in form, and have not yet arrived at their highest perfection. 2d, Climate does affect the

quality of wool. 3d, Sheep can be acclimated so as to make all breeds equally hardy. 4th, High feeding degenerates wool. 5th, No specific time could be determined, only by observing the influence of atmosphere upon vegetation. Yours, &c., JOSEPH PARKER.—*In the Wool Grower.*

AXIOMS IN SHEEP HUSBANDRY.—It is an axiom with good shepherds that sheep should never be permitted to *get poor in the fall*. Hence, as the feed becomes short and frost-bitten, especial care should be given the flock, and here the farmer often finds himself at a loss. He wishes to spare his store of fodder as long as he can and, indeed, while the ground is bare, sheep care little for hay, unless shut entirely from grass. Between "hay and grass," sheep often lose an amount of flesh which they are not able to regain through the winter. A good plan now is to give the best food to be had, yard them on cold or stormy nights, feed them a little good hay or sheaf oats in the morning, and let them run during the day if the weather is sufficiently moderate. Remembering that they need care and attention, and that they should be kept in as good condition as possible, use your own judgment as to the means to be employed.

Another axiom is, never let a sheep *grow poor in winter*. It is very hard work to recruit and bring up a half-starved sheep, even if not diseased, and often when the warm days of spring come, they fail one by one, careless farmer's back lots are strewn with scattered crow baits. The best remedy is to *keep them from getting poor*. If one have a large flock the sheep should be classed off early in winter, into smaller flocks, according to their age and strength, and then be fed accordingly. If they once get poor a little grain seems to have no good effect, but a little grain given to the pin in good order, will assist a good deal in keeping them so. It is a pleasant business to feed a fine flock of sheep in steady cold weather, while nothing can be more unpleasant than the care of a poor half-starved flock in the trying weather of March and April.

The true way is to *never let sheep get poor at any season of the year*. This is the axiom in sheep husbandry.—*Wool Grower.*

FEEDING SHEEP WITH OTHER STOCK.—Sheep should not run or be fed in *yards*, with any other stock. Cattle hock them, often mortally. Colts tears and frequently injure them. It is often said that "colts will pick up what sheep leave." Well managed sheep barely leave anything—and if they chance to, it is better to make it up and throw it into the colt's yard, than to feed them altogether. If sheep are not required to eat their feed very clean, they will soon learn to waste large quantities. But if sheep are overfed with either hay or grain, it is not proper to compel them by starvation to come back and eat it. They will not unless sorely pinched. Clean out the troughs or rake up the hay, and the next time feed less.

STAGGERS IN HORSES.—Sometimes horses are taken with stiffness in their limbs, to such an extent as to cause them to sway and stagger about just like a drunken man. They do not seem to suffer any pain; they do not groan nor bray quite quick; their ears and legs are neither cold nor hot, and neither dung nor urine show anything wrong. This disease is ascribed to a sympathetic derangement of the brain, depending on disorder of the stomach, occasioned by feeding for some time on indigestible food, such as rape, rye grass, or ripe grass seed of any kind. The disease is almost entirely confined to the time of year when ripe grasses are most freely eaten. Several horses on one farm have been affected at once. It comes on, sometimes gradually and sometimes suddenly. The treatment consists in giving a dose of opening medicine, feeding on bran for several days, and giving tonics. The old diet must be carefully avoided, as no cure can be effected so long as the food is given which caused the disease. Some horses have got completely well by turning them into a bare old pasture.—*Country Gentleman.*

TO PRESERVE MEADOWS, in their productive-ness, it is necessary to harrow them every second autumn—apply top dressing and roll them well. The trouble and expense will be richly repaid in increase of crop.

WHAT IS THOROUGH-BRED?

As I am a new hand in breeding stock, I am interrogated often what constitutes *thorough-bred stock*. I know that thorough-bred means through and through. As to the number of crossings that constitute it, I am not positive—some say *seven* crosses make it. Now, as you are residing in a country where the breeders should be well posted, I wish you would give me information on the subject, being an old hand at breeding stock. H. T. WOLLARD.

CASTINE, Darke Co., O., Sept. 26, 1854.

We should define animals as thorough-bred which breed true—that is, invariably produced offspring possessing the same distinguishing characteristics as themselves. This is the case with the race horse, which is claimed to be of pure, desert Arabian blood, on sire and dam's side, imported into England, and bred there, the history of which may be found in the English Stud Book.

There are certain breeds of cattle which appear to be thorough-bred, like the Devon, the black Galloway, the cattle of Chillingworth Park, and other races, in Europe, Asia, &c.

We presume our correspondent more particularly refers to Short Horn or Durham cattle, which are not what we should call thorough-bred, a few tribes, perhaps excepted. These we do not like to name now, because many breeders would feel as if the exceptions were invidious; and such is the want of proper knowledge, both in England and America upon the subject, we doubt whether our doing so would result in anything better than stirring up a hornet's nest about our ears.

When the first meetings were called among the breeders of Short Horns in England, for the purpose of getting up a Herd Book, it was proposed and agreed to by the most distinguished breeders, that such cattle only should go into this Herd Book, as were known to have long possessed Short Horn characteristics in an eminent degree; and that their progeny alone should be considered thoroughbred. But this was afterwards overruled by other parties who possessed inferior blood; and the result was, that all sorts of grade Short Horns have continued

to be inserted in every volume of the Herd Book; so that it is of little value as a guide, to those who know what these choice tribes were, and how they have since been bred. An animal may have a pedigree a page long in the Herd Book, so that it is of little value as a guide, to those who know what these choice tribes were, and how they have since been bred. An animal may have a pedigree a page long in the Herd Book, and still, owing to some of the stains in it being bad blood, it may not be near so good as one with scarce any Herd Book pedigree at all. This, long experienced breeders know to their cost to be a serious fact.

Seven crosses are not *thorough-bred*, nor many times seven; though the first may pass for tolerably well bred in certain kinds of animals.—This may sound like over refinement to some; but let us respectfully ask, if they should cross a Devon bull on a black, hornless cow, and this progeny again with a pure Devon, and so on, how many generations think you would it take to wipe out the stain of the black blood? Let him answer who can."—N. Y. American Agriculturist

FULL BLOODS & THOROUGH BREDS.

Is there any distinction between *thorough-bred* and *full-blood*?—and if any, what?—is the subject of an article in a late number of the *Farmer*, and breeders are invited to give their opinions.

I do not consider the terms, *thorough bred* and *full blood*, as meaning the same thing, but when applied to Short Horns, to indicate very different classes of that stock.

By *thorough bred* I understand that class of improved Short Horns, whose pedigree can be traced in the English herd book to the days of the Collings and their compeers.

By *full blood*, a class bred in this country from imported stock, but which came without pedigree.

A cross between these two is *full blood*, for the pedigree should be traced through both sire and dam, to be *thorough bred*.

Mr. Hawkins thinks the distinction should be abolished. I have no idea that it will be done

very soon, the breeders of that stock have too deep an interest in the matter. Those who have *thorough-bred* stock will not agree to place it on an equality with the *full blood* and the owners of *full blood* stock cannot be expected to sink to the level of common stock, and as it becomes a question of depreciation on one side or the other to settle the matter, I have no expectation of seeing it shortly.—*Ohio Farmer.*

THOROUGH-BRED AND FULL BLOOD.

In England, where breeding for the Turf has prevailed for several centuries, no horse is considered thorough-bred that cannot trace back his pedigree, without flaw on the side of either sire or dam, to the imported Barbs or Arabs.—English Juries have frequently decided that a horse warranted thorough-bred, is returnable if any flaw can be proved in his pedigree. No number of pure crosses, upon a common stock, can produce an animal warrantable at thorough-bred. Five successive crosses, however, is thought so far to neutralize the common stock, as to produce an animal nearly equal in all respects to a thorough-bred. Such an animal is designated as a *full-blood*. (*See American Turf Register, Vol 3 p 615, 1832.*)

The same holds good with Cattle, none of which can be considered thorough-bred that have the least flaw in their pedigrees, and cannot be traced through the American and English Herd Books, to the original sources of the breed.

Of Sheep none can be called thorough-bred Merino that do not trace back, without a foreign cross, to some of the original importations or flocks of Spain. Mr. Livingston, in his work on the Sheep, considered, that an animal possessing seven-eighths pure blood, was scarcely distinguishable from a thorough bred, and nearly equal as a stock getter. Such an animal would then be considered as a *full blood*.

From a clear understanding of these facts we have no difficulty in arriving at the true definitions of the terms *thorough* and *full-blood* as applied by the most intelligent breeders of stock.

A *thorough-bred animal*, is one that can trace his pedigree, without flaw or admixture of common blood, back to the original source of the breed.

A *full-blood animal*, is one that has been bred up until it does not possess more than one-eighth or one sixteenth common blood.

The advantages and importance, then, of using none but *thorough bred* animals as stock getters is readily perceived. By their use our common stock can soon be bred up, so as to resemble the thorough-bred itself.

THE BIRD'S ISLAND GUANO DIFFICULTY.—It is stated that orders have been sent by the government to Aspinwall, requiring the U. S. ship, Falmouth to proceed at once to Bird's Island, with a view of settling the difficulties there. The Washington correspondent of the New York Post says:

"As is well known, Bird's Island is a little uninhabited rocky spot near the Dutch West Indies. About six months or a year ago a ship belonging to Philo S. Shelton, and other capitalists of Boston, touched on the deserted place, and while the captain and crew were loading her with guano, they were driven away with insult and damage by a ship of-war of Venezuela. Now, as no jurisdiction, so far as can be ascertained, has been established over the island in question by any government, it has been determined to vindicate the right of our citizens to remove the guano from it by some decisive step, and to insist on reparation for the indignity to which the American flag was exposed while floating over the fragrant deposits which gave rise to the trouble.

COUGH IN HORSES.—It is said that small twigs of cedar chopped fine and mixed with their grain, will cure a cough in horses, and that this has been used with complete success.

CURE FOR SCRATCHES.—Mix one ounce of chloride of lime and one quart of water; wash the parts well; after which apply white lead ground in oil. This has never failed to cure.

COAL ASHES.—The best purpose which coal ashes can be applied to in town or country is in making garden walks. If well laid down, no weeds or grass will grow, and by use they become as solid and more durable than brick.

Explanation of Agricultural Terms.

Trench Plowing—is running the plow twice in the same furrow. In doing this the top soil, with all its foul weeds, is cast to the bottom of the trench, a new soil is thrown up on which the sun has never before shed its rays. It is done sometimes at one operation, by a plow constructed for the purpose, called a trench plow.

Horizontal Plowing—is so conducted by the use of an instrument, called "ratter level," as to lay the side hills in horizontal beds, about six feet wide, with deep hollows or water furrows between, for the purpose of retaining the rains.

Indigenous Plants—are such as are natives of the country in which they are found or grow. Thus, maize, the potato, and tobacco, are called indigenous to America, having been found here, and from America introduced into Europe.

Erotic Plants—are such as are natives of foreign countries. Such as the lemon tree, and many others, when introduced into the United States, are cultivated in hot houses.

Annual Plants—are such as are of but one year's duration. Such are the most of our garden plants, and all others growing from seed sown in the spring, which are at maturity in the summer or autumn following, producing flowers and ripe seed, and afterwards perish both in their top and roots.

Biennial Plants—are such as, in their roots at least, are of two years' duration. Many of these plants perish in their top the first year, but live in the root through the winter, and the second year shoot up stalks flower, produce seed and afterwards perish both in root and branch. Such are the parsnip, carrot, &c.

Perennial Plants—are such as are of many years' duration. Such are all plants whether the leaves and stalks perish annually or not, provided the roots are of many years' duration, as the horseradish, bindweed, &c.

Herbaceous Plants—are those whose herb, that is, whose stem and branches are of but one year's duration whether the root be annual, biennial, or perennial.

Esculent Plants—are such as are replete with nutritious matter, consequently proper for being

eaten as food. Such as parsnips, carrots, cabbage, and various others of a similar nature.

Deciduous Plants—are all such plants whether of the tree or shrub kind, as shed or lose their leaves in the autumn or winter seasons.

Tuberous Plants—are such as consist of one or more knobbed tubes of a solid fleshy substance, as the potato, artichoke, &c.

Bulbous Roots—are such as have a roundish, swelling, bulbous form, composed of numerous scales or coats, as the onion, garlic, &c.

Tap Roots—are such as in the form of a tap descend down into the ground in a perpendicular direction, as the carrot, parsnip, red clover.

Fibrous Roots—are such as are wholly composed of numerous thready or fibrous parts, such as the roots of all kinds of grain.

Rotation of Crops—is a course of different crops, in succession on the same piece of ground, for a certain number of years, after which the course is renewed and goes around again in the same order. There is a difference between a *course of crops* and a *rotation of crops*. Thus, if a piece of ground in sward be broken up and planted with Indian corn the first year, the second year with potatoes, the third year sowed with oats and grass seed? and mowed the fourth, fifth and sixth years, this makes a *course of crops*. If then the seventh year it again be broken up, planted as before, and the same *course of cropping* pursued, it becomes a *rotation of crops*.

Stalling—is the feeding of cattle, either in the barn or yard, through the summer, with new mown grass or roots.

Lays—are the tender branches of trees and shrubs bent down and buried in the earth, leaving the top out, in which situation they are fastened with books to prevent their rising. The part in the earth sends out roots, after which it is separated from the parent tree and transplanted in the same manner as the tree raised from the seed.

Cuttings or Slips—are small portions of the twigs, branches or roots of plants, cut off with a knife, or sipped off with a thumb and finger, for the purpose of setting or planting in the earth with a view of producing new plants or trees of the same kind.

Sets—are young plants taken from the seed bed to be set or planted out. Cabbage, and various plants are usually propagated in this way, being first sown in beds, from which the plants are taken up and set out in the field or garden.

Fallow—signifies land in a state of rest, not being planted or sown for a season, but repeatedly plowed and harrowed, for the purpose of clearing it of weeds and dividing and pulverizing the soil more perfectly. Such is sometimes called a *naked fallow*, because the land carries no crop.

A *Green fallow*—is that where the land has been rendered mellow and clean from weeds, by means of some kind of *green crops*, such as turnips, peas, potatoes &c., cultivated by the horse, plow and hoe. The crop so cultivated and for the above purpose, is called a fallow crop. In this mode of fallowing, no time is lost by the land being left idle or in an unproductive state. Fallowing is sometimes distinguished by the season of the year in which the business is either principally or wholly accomplished; hence we have summer, winter and spring fallow.

Winter fallow—is only breaking up the land, or plowing in the fall, and leaving it exposed to the action of the frosts of the winter.

Dibbl—is a tool of very simple construction for making holes in the ground at equal distances, in which certain seeds are sometimes planted. Seeds planted in this way are said to be dibbled in. It is used also in transplanting. The handle of an old spade or shovel, sharpened at the lower end, may answer very well for this purpose.

Requisites of a Good Farm.

Nearly all who have thought on the subject at all, have some idea of what constitutes a good farm, and good farming. To put a farm in good order requires good judgment, good taste, labor, money and experience. A mean or penurious man can never make a fine farmer, because he is too stingy to enrich his soil with manures, to build a good house and surround it with trees and shrubbery, to erect good fences,

or even to purchase and keep the best of animals. Every man's farm reflects pretty correctly his heart and mind. If by nature he possesses a large heart which has been enriched by cultivation, his farm, house, and stock show it quite as well as his conversation and address.—But to the points of a good farm. The Norfolk, Mass., Agricultural Society have attempted to sketch them, and here they are:

REQUISITES AND EVIDENCES OF GOOD FARMING.

1st. A good soil, well tilled, and kept free of various weeds, both on the fields and the roads.

2d. Lots well fenced, and suited in number to the size of the farm.

3d. Substantial and convenient barns and stables of sufficient dimensions to contain the produce of the farm, and to comfortably house the cattle kept on it.

4th. A judiciously arranged dwelling, in neat condition, with a well and filtering cistern.

5th. Convenient buildings to facilitate the economical management of the farm; among which may be enumerated a wood-house, a wagon and tool house, a workshop, a granary and corn-house, a convenient piggery, an ice-house, ash and smoke-house, all secured against decay by being well raised from the ground and neatly painted or whitewashed.

6th. Convenient yards attached to the barns and stables, so arranged as to prevent waste of the liquid manure, well sheltered from the blasts of winter, and provided with water for the cattle.

7th. Door yards laid with grass and flower-beds, and shaded by ornamental trees, indicating to the passer-by the dwelling of taste, health and comfort.

8th. A kitchen garden highly cultivated, and containing every species of vegetable that can be raised in our climate, with strawberry and asparagus beds.

9th. A fruit garden or orchard, where choice apples, cherries, and plums are carefully cultivated, and where can be found neat rows of raspberry, gooseberry, blackberry and currant bushes.

VISIT TO A GUANO ISLAND

Amongst all the new-fangled manures introduced by experimentalizing agriculturists, during the last twenty years, not one has been so rapidly and universally adopted as guano. Its astonishing fertilizing qualities, and easy mode of application have rendered it a general favorite with the farmers, though the immense distance of the places from which it is chiefly obtained, and its consequent high price, must limit its use, even if the supplies were inexhaustible.

The Island of Ichaboe, on the west coast of Africa, from whence guano was first obtained in large quantities, is perhaps the most remarkable instance of a desolate rock becoming suddenly the port of destination for hundreds of ships, and the source of immense wealth to numerous individuals. But Ichaboe was soon exhausted, and the dusty treasure that had for many centuries been accumulating on its rocky bosom, was literally swept away. The once busy island has now returned to its former loneliness, and the fleet of ships that gathered round it, seek on still more distant coasts, the fertilizing powder that shall fatten the impoverished fields of distant countries.

More than half the guano imported during the last ten years, has been obtained from a small group of Islands called the Chincas, that lie off the port of Pisco, on the Peruvian coast. Of these Islands, the largest, Sangallan, has very little guano upon it, the principle deposits being found on three smaller ones, the most northern of the group. These are distinguished as the North, Middle and South Islands. The North Island has been constantly worked ever since the introduction of guano. The middle one has also been occasionally invaded; but the South Island, on which we believe the accumulation to be greatest, remains untouched.

Every ship bound to the Chincas is compelled to anchor at Pisco, in order to pass the necessary custom-house formalities, before proceeding to her loading ground. A couple of hours are then sufficient to carry her across the few miles of water that intervene, and she soon again drops her anchor amongst the numerous fleet

that is ever laying off the Island waiting their turn to load. The odorous scent of the guano is distinctly perceptible at several miles distance, and is far from unpleasant, when thus mingled with the pure sea air.

The first duty of the crew after the ship's arrival, is to discharge the extra ballast, and as the captains have no dread of port officers, or harbor masters, the sand or stone is quietly tossed over the side, until there is barely sufficient left in the hold to keep the vessel on an even keel. In the meantime the long boat is hoisted out of her berth amidships, and a part of the crew are busily employed in bringing off boat loads of guano from the Island, to replace the discharged ballast. The peculiar odor pervades the whole ship—the carefully tarred rigging becomes a dirty brown, while the snow white decks and closely furled sails assumes the same dark hue.

On the side next the mainland, the Islands rise precipitately from the sea to a considerable height, presenting only a bare, dark wall of rock. From the upper edge of the precipice, the huge mound of guano slopes rapidly upwards for a short distance, and then spreads into a level surface that gradually descends on every other side to within a few yards of the water. Here and there, huge craggy points thrust their white heads through the brown crust of guano, which as completely filled up the deep hollows that have originally existed in the Island, and would soon, had it not been disturbed, have covered even the crests of what were once tall pinnacles. The only safe landing place is on a narrow strip of beach, the remainder of the Island being surrounded by low rocks, and small detached reefs; but the irregular formation has greatly facilitated the loading of ships, enabling the crews to accomplish that in a few days, which, under other circumstances, must have cost them studious weeks of labor. Close to the face of the rock the water is deep enough to float the largest merchantman; and the steady constancy of the tradewind, which rarely increases here beyond a pleasant breeze, enables the ship to lie in perfect safety in close contact with her two most dangerous enemies—a rocky island, and a dead lee shore.

Having taken aboard by her boats sufficient guano to ballast her, the ship is hauled in close to the steep reef, to which she is securely bound with warps and chains, two anchors being dropped to seaward, to enable her to haul off again when loaded.

Down to the very edge of the precipice, on the summit, comes the point of a triangular enclosure, open at its base, and made of strong ropes driven into the solid guano, and closely fitted together with iron chains. At the point resting upon the edge of the cliff, there is a small opening, to which there is firmly attached a large canvass pipe, which hangs down the face of the precipice, and passes into the hold of the vessel beneath. The enclosure, which will contain several hundred tons, is filled with guano by the Indian laborers, and a small line that enters the mouth of the pipe being slackened, the whole mass is poured into the ship at a rate which very soon completes her cargo. From different parts of the pipe bow-lines lead to the mast-heads of the vessel, and from thence on deck, where they are tended by the crew, who alternately haul upon and slack them, so as to keep the long pipe in motion and prevent its sticking. But however well they may succeed in this effort, the men have considerable difficulty in avoiding some such catastrophe in their own persons; for the guano, after falling from a great elevation, rises through the hatchways in one immense cloud, that completely envelops the ship and renders the inhaling of anything else but dust almost a matter of impossibility. The men wear patent respirators, in the shape of bunches of tarry oakum, tied across their mouths and nostrils; but the guano mocks such weak defences, and a brisk continued cascade of sneezes celebrates the opening of the eyes, and accompanies, in repeated volleys, and unwilling tears, the unremitting shower of pungent dust. In the meantime, a gang of Indians is at work in the hold, trimming and levelling the guano as it pours from above. How they contrive to exist at all in such an atmosphere is a matter of astonishment; but even they are unable to remain below longer than twenty minutes at any one time. They are then relieved

by another party, and then return on deck perfectly naked, streaming with perspiration and with their brown skins thickly coated with guano. The two parties thus alternately relieving each other, a ship of seven or eight hundred tons is loaded in two or three days—the Indians working during the night, and filling up the enclosure, ready for shipment the following day. A smaller enclosure and pipe supply the boats of the vessel anchored off the Island.

The guano is dug out with a pick and shovel down to the level of the rock, and on the North Island, the cutting thus formed, is in some places from 60 to 80 feet in depth—in others it is only a few inches; but these shallow spots are comparatively rare, and usually border on some deep valley, firmly packed with the precious substance. From the pressure of the superincumbent mass, the lower strata have become almost as hard and compact as the rock itself, and the color deepens from a light brown or sometimes white, at the surface, to nearly black at the bottom of the cutting.

The guano of the Chinese Islands is said to surpass all other deposits in its strength and fertilizing qualities, and this is chiefly attributed to the fact that rain never falls on the Islands. Owing to this extreme aridity of the climate, the saline particles of the manure are never held in solution, and are therefore less liable to be lost by evaporation, than where the surface of the mass is frequently washed by heavy rains. Large lumps of very strong and pure ammonia are frequently turned up by the diggers. The thick fogs that in certain seasons are of nightly occurrence on the coast, convert the outer layer into a greasy paste, which is immediately baked by the sun into a hard crust, that prevents even the fogs from penetrating into the interior.—The crust is completely undermined by the birds that still frequent the Island in large numbers. These are *misos*, *gamets*, *penguins*, *pelicans*, *divers*, *shear beaks*, and many other sea fowls, but the most common is the *guano bird*, a very handsome creature, beautifully variegated and decorated with two pendant ear-drops. Naturalists, delighting in hard words, call him, I believe, *sulcieta variegata*. These web-footed col-

onists form regular towns beneath the crust of the guano and various settlements, communicating with each other by galleries, running in all directions, so that it is deemed almost impossible to set foot upon the untouched surface of the island, without sinking to the knee in some feathered lady's nursery, and either smashing her eggs, or mutilating her half-fledged progeny. The egg shells, and the remains of the fish brought to feed the young birds, or to be devoured at leisure by the old ones, must form a considerable item in the deposits.

Thickly tenanted as are the Islands, and the air above, the waters beneath are no less full of life. Shoals of small fish are continually passing through the channels. Whales are frequently seen, rolling their huge bodies in the offing; and the numerous caves that perforate the islands on every side, are inhabited by colonies of seals and sealions that wage an unceasing predatory war upon the sparkling shoals that pass, unconscious of all danger, their gloomy surf-bound territories.

The islands themselves are perfectly barren. Not a blade of grass, nor even a particle of moss exists upon them. They present only one brown arid expanse, incapable of furnishing food for the tiniest nibbler that ever gnawed a grain of corn; and yet they possess sufficient fertilizing power to transform a barren desert into a fruitful garden; and they annually furnish food in other lands, for thousands of hungry mortals, who never even heard of its existence! They are also completely destitute of water—the Indians who live upon them, being supplied with this necessary of life by the shipping, in turn. Every article of food is brought from Pisco, to which port the guano diggers occasionally resort to spend in extravagance and dissipation their hard earned wages. The Commandant resides on the North Island in a miserable cottage; four poles stuck in the guano, with grass mats or a few reeds stretched between them, and covered in with a flat roof, of the same material, form specimens of a high order of the Chinca architecture. Furniture is of course unknown, and clothing as near so as possible; but the high wages given to the laborers appear to

balance the *disagreements* of their position; for several Englishmen are amongst their number. Some of these are employed in mooring the ships alongside of the rock.

Guano has been used for agricultural purposes in Peru, ever since the invasion of the Spaniards, and there are good grounds for believing that its use was known to the Indians long anterior to that period. It is now chiefly applied there in the cultivation of maize and potatoes and large quantities of it are consumed in the haciendas that skirt the banks of the river which flow from the mountains through the desert, raising in their passage through the arid ocean, long green Islands, of extraordinary fertility. The mode of applying the manure differs considerably from that adopted with us.—It is never used with the seed; but when the plants are a few inches above the surface, a long shallow trench is made close to the roots, and in this a small quantity of the guano is placed the white being always preferred. The trench being laid completely under water by dams and sluices, erected for the purpose, or, where no such system of irrigation exists, other means are adopted for thoroughly saturating the soil. The potatoes produced by this mode of culture, are perhaps the finest, both for size and quality, in the world, and the extraordinary rapidity of the growth, after the application of the manure is most astonishing.

HOW TO HAVE GOOD COFFEE.—Due regard being paid to the quality of the coffee, Old Government Java being the best to be found in our Western markets, the next thing to be done is to pick it over carefully; after which, it should be washed and dried. Then *roast* it—being careful that the kernels are equally browned to a deep chestnut color, and not burned, as that destroys the life of coffee, giving it a bitter and disagreeable taste. Grind it not too fine; then break an egg into it, and stir it till the particles adhere, then turn into the pot boiling water and let it boil twenty or thirty minutes. After taking it from the stove, turn into it a few spoonfuls of cold water, to settle it. This, with sugar and sweet cream, has no bad taste in it, and is fit for a king; or what is better, for the farmers of N. C. or any other class of honest people.

A PLACE FOR EVERY TOOL.

Every body, who is any body, likes to see *tem* and *order* displayed in the various operations of the farm; and even the most careless and negligent, admire, and *approve* the practice of him who has an appropriate place for every tool, and who strenuously insists on *putting them there*. "A place for every thing, every thing in its place," is a maxim common with the art of printing, for aught I know; and we find, many times, that those who often insist on having this precept carried into practice, come the farthest short of keeping it themselves. Many farmers fail, greatly, in keeping this precept; and in time lost, patience tested, and the many hindrances which result therefrom, they are often obliged to suffer a mortifying penalty.

Ask Mr. A. where he keeps his hand saw, his augers, or pick, crow-bar, &c. "Well, I never think—where did I use them last?—in the wood-house. If they are not there, look in the carriage-house; and if they are not found there, let us see if they are not somewhere about the barn, or in the stable." Mr. B. says, I usually keep my tools either at the house, or barn, or in the path that leads from one to the other. There being, generally, such a destitution of *order*, in reference to keeping tools in their appropriate place, it is deemed a matter of no impropriety to speak of *order* and arrangement, in the disposition of the various tools of the workshop, and farm, which is practised by a young farmer, not a hundred miles distant from the residence of the writer.

Ask him, for instance, where his hand saw is; or his drawing knife; or his augers; or any other tool you may need; and the unhesitating reply is, in such a part of the shop, hanging on such a pin, or nail, or standing, or lying in such a corner, or on such a shelf. There hang the augers, each one in its appropriate place; and on all the premises, they are allowed *no other place*. There hang a half dozen saws; and if one of them is taken down, but for a *moment's* work, its first and last resting place is, *on its peg*. There is a drawer with an apart-

ment for screws, one for rivets of a half dozen different sizes, one for washers, for bolts of all sizes, one for nails of different sizes, and so on. In one corner is a shallow box shelf, where are a lot of carriage bolts, and other bolts, and where every thing in the bolt line is kept, in case of a break down.—There hang a number of extra plow handles; in case one should be broken in seed-time, a half day need not be spent in going several miles to have it repaired. Extra pieces of harness, pieces of worn out or broken tools, hang on nails, on one side of the shop, where, at a glance of the eye, any thing that is wanted to repair a break down, can be had, without tumbling over a whole box full, to find something which, perhaps, may not be there.—There hang a variety of useful little articles, instead of being tumbled into a box, where they can never be found when needed. There hang the chains (not on the fence anywhere on the plantation), in that corner. There the beetle and wedges are kept. Are there any extra plow points about the shop? You will find them up stairs, in such a place, and *no where else*. Every one who assists about the barn and stables understands that this shovel, when not in use, must stand in that corner.—The manure fork must be kept *here*. That fork, and that shovel, in the feeding room, must always stand in this end of the box, where feed is mixed. This fork must be left on the mow, and when not in use, the end of the handle must be rested on the ladder, so that one always knows, even in the dark, where to find the fork to throw down fodder. That harness, and that collar belong on that horse, and they must always be hung *on that hook*. When the halters are taken off the horses, each halter is hung on its appropriate hook. A score of other little things, which are generally thrown here and there, by the majority of people, have *their own place*, and will always be found there when not in use.

Where there are a large number of workmen, and boys to use the tools, it is just as easy to keep them in one place, and *far more* important, as where there is but one or two individu-

als to use them. Let it be understood by each one, that *every tool must be returned to its proper place immediately.* When an auger, or chisel is needed, ten or twelve rods from the shop, let it be returned without delay. It will require but one minute to travel ten rods; and if one is in haste, at such a time, one or two minutes will make no material difference in the work of a day; if it were like to do so, who could not work one or two minutes later at night to redeem those lost moments? And, besides, when tools are laid down, here and there, thinking to return them when it is more convenient, they are often forgotten, and scores of minutes are lost in search for them, even when one is in the greatest haste. There is always a great satisfaction, when one needs a certain tool, in having the assurance that the hand can be laid directly on it, even in the dark.

Those farmers who succeed best in their operations, are noted for their strict adherence to system and order; and those who set at naught all order and system, are always in a hurry; never know where to find anything, except some where on the farm, and they never accomplish but little in comparison to what they might, were system and order their watchword.
Country Gent.

Rowan County Agricultural Society.

The Rowan County Agricultural Society, held a called meeting at Mr. William P. Graham's "Blackwell house," on Thursday, Feb. 1st, 1855. The President called the Society to order, and the proceedings of the last meeting were read by the Secretary and approved by the meeting.

On motion, Wm. B. Graham was appointed Corresponding Secretary.

On motion, the Treasurer was requested to collect all that is due the Society, and procure the amount coming from the State for last year.

The Committee appointed to have a tombstone erected to the memory of A. J. Fleming, reported that they had procured a stone with appropriate devices at a cost of \$25 50.

On motion of Col. Austin, an appropriation was made to pay said amount.

It was ordered that the Treasurer pay the premiums awarded at the last Fair.

On motion, J. D. Johnson, T. C. Hyde, W. B. Graham, were appointed a committee to draw up a premium list for this year, and present it at the next meeting.

Mr. J. D. Johnson offered some Resolutions concerning premiums, which are laid over to the next meeting; after which, the society adjourned to meet at the Mineral Spring, on the Thursday in April, next.

JOHN F. FOARD.

Carolina Watchman.

GALLS FROM THE HARNESS OR SADDLE.

Major Long, in his valuable account of his expedition to the Rocky Mountains, says, that his party found white lead moistened with milk succeed better than anything else in preventing the bad effects of the galls on the horses' backs in their march over the plains that border the mountains. Its effect in soothing or soothing the irritated and inflamed surface was admirable.
—*American Farmer.*

TO PREVENT HENS FROM EATING THE EGGS.—Watch them as they go to their nests and remove the eggs as soon as the hen goes off. If done for a few days they will discontinue the practice. Supply them with lime, old mortar &c., also.

ONE PAIR OF PIGS, according to Allnutt will increase in six years to one hundred and nineteen thousand one hundred and sixty-nine—taking the increase at fourteen times per annum—A pair of sheep in the same time would be but sixty-four.

If You want to ascertain whether a soil contains lime, you may pour upon a small quantity of it vinegar or dilute muriatic acid. If lime is present, the mixture will froth up or effervesce.—*Dr. Kent.*

Since the opening of hostilities up to the end of the year, the total number of Russian prizes captured by British cruisers has been ninety two.

C. State Agricultural Society,	1
gavin—Its Nature, Cause, Symptoms and Treatment,	10
Waste Manure,	12
Witch Drains,	12
Wounds of the Short Horn Bull,	13
Worth Devons—the Cow,	13
Wounds for the Farmer,	15
How much Lime do soils need ?	15
Wruit Trees,	15
Waugnial,	16
Wur First-Number,	17
Wur Editorial Department,"	17
Wur correspondents,	17
Wur Terms,	17
Wur endorsement,	18
Wur appropriation to the N.	18
Wur Union Agricultural Society of Va. and N. C.,	19
Wur respect for Fruit,	18
Wur aguerreotypes of Native Stock,	18
Wur Earl in Franklin County,	18
Wur pecial Notice,	18
Wur rahma Pootra Fowls,	19
Wur sheep Husbandry—Important Questions answered,	20
Wur axioms in Sheep Husbandry,	21
Wur eeding Sheep with other Stock,	21
Wur taggers in Horses,	21
Wur to preserve Meadows,	21
Wur to prevent Hens from Eating their Eggs,	30
Wur increase of Pigs and Sheep,	20
Wur to ascertain whether a soil contains Lime,	30
Wur What is Thorough-Bred ?	22
Wur The Birds' Island Guano difficulty,	23
Wur ough in Horses,	23
Wur cure for Scratches,	23
Wur Coal Ashes,	23
Wur visit to a Guano Island,	26
Wur place for every tool,	23
Wur towan Agriecultural Society,	30
Wur explanation of Agricultural Terms,	25
Wur requisites of a good Farm,	28
Wur How to have good Coffee,	28
Wur falls from the Harness or Saddle,	30

At the late "National Cattle Show," held at Springfield, Ohio, a large number of Short Horn breeders were assembled, from ten or twelve States and the Canadas. The subject of a continuance of the publication of an American Herd Book was fully discussed by them. It was agreed that, with so large a number of Short Horn cattle as are now owned and bred in the United States, and the Canadas, a Herd Book, devoted to the registry of AMERICAN Cattle, was imperatively demanded. The expense and trouble of transmitting their pedigrees to England, and the purchase of the voluminous English Herd Book, now costing at least one hundred dollars, is no longer necessary; and that as the breeding of pure Short Horn Blood must depend much upon having a domestic record at hand, when the requisite information can be obtained and that of a reliable character, a Herd Book is indispensable.

In pursuance of the unanimous request of the gentlemen engaged in breeding Short Horns, above alluded to, together with many individual solicitations, which I have received from other breeders during the past year, I have concluded to issue this, my Prospectus, for a second volume of "The American Herd Book," and to request you if you feel an interest in the work, to inform me at your earliest convenience, whether you will aid in its publication by sending a record of your animals for registry, and to designate the number of volumes of the book you will take. The size of the work will, of course, depend upon the number of animals registered, which, if this opportunity is embraced by the breeders generally, will be several hundred pages octavo, and illustrated with portraits of such animals, properly engraved, as the owners may be desirous to have inserted, they furnishing the cuts for the purpose.

I shall also give an account of all the recent importations into the United States. A copy of the Catalogue of each separate herd will be given, whenever they can be obtained, together with the account of their sales, the prices at which they were sold, purchaser's names, &c. In short, every matter of interest in relation to them, so far as it can be obtained, will be given.

All papers relative to such information will be thankfully received, sent to my Post-Office address at BLACK ROCK, N. Y.

As it is necessary that I get to work by the first of March next, you will oblige me by replying immediately, and informing me whether you will have your cattle recorded, and if so, what the probable number will be, and the number of volumes you will take. The recording-fee for each animal will be fifty cents; the price of the book five dollars. The recording fees will be expected to be remitted in advance, when the pedigrees of the cattle are forwarded, and the book paid for on delivery.

If, by any casualty, the book should not be issued, the advance money will be promptly refunded.

That there may be as little uncertainty as possible, I wish that the reply to this may be as prompt as convenient, that I may know whether I shall be justified in undertaking the work; if so, I will give you notice of the fact as early as the first of February, 1855, on receiving which, your pedigrees and insertion-fees will be required to be sent immediately.

Very Respectfully yours,

LEWIS F. ALLEN.

Buffalo, Black Rock Post Office, N. Y., Dec. 1, 1854.

P. S.—As I cannot be presumed to know the name and address of every Short Horn breeder in the country, you will oblige me by sending one of these Circulars to every breeder with whom you are acquainted, or to whom you have sold "Herd Book" animals, and give me a list of others, that I may send them a circular, so as to give as extensive information as possible on the subject.

Agricultural papers throughout the United States giving the above Circular one or more conspicuous insertions, shall be entitled to receive a copy of the Herd Book when issued. Aside from this, they will confer a favor on their several subscribers in thus giving them notice.

NORTH CAROLINA MUTUAL LIFE INSURANCE COMPANY, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the MUTUAL PRINCIPLE, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$30, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with the low rates of premium, present great inducements to such as are disposed to insure.

Slaves are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 90 days after satisfactory proof is presented.

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WILLIAM D. COOKE,	<i>Executive Com-</i>
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CHARLES B. ROOT,	

J. HERSMAN, *General Agent.*

For further information, the public are referred to the pamphlets, and forms of proposal, which may be obtained at the Office of the Company, or any of its Agencies.

Communications should be addressed, (post paid,) to JAMES F. JORDAN *Secretary.*

NORTH CAROLINA

MUTUAL INSURANCE COMPANY.

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

DIRECTORS:

J. B. G. Roulhac, Raleigh.	
Henry D. Turner,	do.
J. R. Williams,	do.
T. H. Selby,	do.
C. W. D. Hutchings,	do.
James F. Jordan,	do.
James M. Towles,	do.
James E. Hoyt, Washington.	
Alex. Mitchell, Newbern.	
Josner G. Wright, Wilmington.	
John M. Jones, Edenton.	
W. W. Griffin, Elizabeth City.	
F. F. Fagan, Plymouth.	
W. N. H. Smith, Murfreesboro'.	
H. B. Williams, Charlotte.	
Geo. A. Smith, Milton.	
O. F. Long, Hillsboro'.	
Joseph White, Anson County.	
Josh. Boner, Salem,	
A. T. Summy, Asheville.	

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J. B. G. Roulhac, <i>President</i> .
H. D. Turner, <i>Vice President</i> .
John C. Partridge, <i>Secretary</i> .
John H. Bryan, <i>Attorney</i> .
J. Hersman, <i>General Agent</i> .

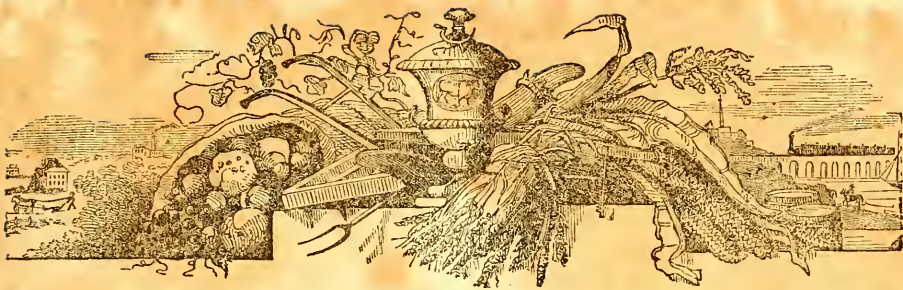
John R. Williams,	} <i>Executive Committee.</i>
J. H. Selby,	
C. W. D. Hutchings,	

This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam Mills and Turpentine Distilleries, upon favorable terms. Its Policies now cover property amounting to \$1,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid.

J. C. PARTRIDGE, *Sec'y.*
Raleigh, Jan. 9th, 1855.



THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

VOL. 1.

RALEIGH, N. C., APRIL, 1855.

NO. 2.

WILLIAM D. COOKE, PUBLISHER.

Different Kinds of Food for Soiling.

Wheat and Rye.—The earliest food which can be depended upon in the spring, for soiling, is wheat or rye. We much prefer the former, as it is sweeter and more nutritious; nor does the straw become tough and harsh so soon as rye; it consequently lasts longer.

Cultivation.—If the ground be not already rich, it should be made so. It cannot be made too rich for this purpose. Plow deep, harrow fine, and then roll. Now take an extra quantity of seed, and sow broadcast, as early as the last of August or the first week in September. Plow this in about three inches deep with a three-furrow plow; leave the land in its rough state, without harrowing or rolling. By using an extra quantity of seed, the stalks grow finer, sweeter, and more tender; and by leaving the land rough, the plant is not so likely to winter-kill. Plowing in the seed has a further advantage; the plant strikes a deeper root, and consequently grows stronger than if lightly harrowed in; it also comes up in rows, as if drilled, which gives the air a much better opportunity to circulate among the stalks; thus promoting a more rapid and better growth. However rank the grain may grow in the fall, it is not advisable to feed it off in the slightest degree, except in a southern climate. North, the grain requires all of its fall growth to protect it du-

ring the winter, and insure a vigorous and rapid start in the spring.

Orchard Grass, Lucerne, Ray Grass, and Clover.—These grasses come forward first in spring in the order mentioned, although they ripen for hay about the same time. In a very early season, we have had orchard grass in a dry, warm, rich soil, two feet high, and fit for soiling in the latitude of 40 degrees 30 minutes, by the last of April; it however cannot generally be depended upon in this latitude before the last of May.

Cultivation.—For Orchard and Ray grass, the land must be rich, clean, and well pulverized. Sow each kind by itself, at the rate of at least two bushels of seed per acre, early in the fall or spring, then harrow and roll. Neither clover nor other seed should be sown with these grasses; and it is important that the seed be sown thick; otherwise it will come up in tufts, and in a few years be almost entirely rooted out by other grasses. The yield is very large when properly cultivated. We have taken upwards of three tons per acre of well-cured hay of the former. For hay, neither of these grasses is quite so good as timothy, herdsgrass or red top. This ray grass must not be confounded with rye grass nor oat grass. It is much superior to either, and makes the finest and best of lawns for our country. It is now in great request in this vicinity for the purpose of soiling.

Clover should be sown the last of February, or early in March, just after a fall of snow, if possible, at the rate of ten to sixteen pounds of seed per acre, at least. Whenever there is frost upon it, especially in the spring, not a hoof should be allowed to cross or nibble it till the sun has dried off the frost. We have seen a small flock of sheep ruin a whole field in a single hour, by pasturing it on a frosty morning.

The cultivation of lucerne is attended with too much trouble to find favor at the high price of labor in the United States. It requires a very rich, deep, warm soil, prepared in the best manner. Sow fifteen to twenty pounds of seed per acre, in drills, nine to eighteen inches apart, the last of April or first of May, in this climate. Hoe it well during the summer, and keep it clear of weeds; otherwise they will check its growth, or almost entirely kill it. The following year, it may be cut several times during the season of its growth. After each cutting, liquid manure, or a light rich compost spread over it, is very valuable.

Indian Corn.—By sowing the earlier varieties for the first sowings, this may be had from the fore part of July till late in November. The proper time for cutting corn for soiling, is when the ear is well set on the stalk, and the grain is in milk. If cut before this, it is apt to scour the stock, and it is not so nutritious for them.

Cultivation.—Plow very deep—subsoil if possible—you cannot make the land too rich. Sow the earlier varieties in drills from twelve to eighteen inches apart; the latter from eighteen to thirty inches; keep the ground clear of weeds, either by the hand cultivator or hoes. To sow in drills is far better than broadcast, as the air then circulates freely among the stalks, and makes a much healthier and better growth. The varieties of sweet corn are decidedly superior for soiling as the stalks are sweeter and more nutritious. Not so great a growth of stalks, perhaps, can be got per acre; but the superior quality of the stalks and ears more than compensates for the deficiency in quantity.

Millet.—Prepare the ground as for orchard grass, and sow broadcast, or in drills six inches apart, from the last of April to the first of July. It may be harrowed, or plowed in like wheat, only not so deep by one inch. It should be cut for soiling when the stalks are in flower, or just as it is going out of flower.

Oats and Buckwheat.—Sow and cultivate the same as millet.

There are other grains and grasses which may be profitably cultivated for soiling, but the above are the most important.

Of pumpkins, cymilins, squashes, sugar beets, and other roots which ripen in the fall, we shall not at present speak, as it would make this article too long.

Treatment of Stock under the Soiling System.—Stock, when soiled, should have a free range of a few acres at least. Exercise in the open air, the greater part of the day, is essential to their good health and thrift. Their food may be thrown in small bundles on the clean grass ground; but a better manner for feeding is, to place the food in common hay ricks, standing on legs two or three feet from the ground. There is much less waste by adopting this method. If fed in stalks, the corn stalks are better cut up fine before feeding, in a machine made expressly for this purpose. Every particle of them will then be consumed with avidity.

Green food should always be given fresh cut; if allowed to lie a few hours, and become half wilted, it is injurious to stock, causing disease, and sometimes death. Be very careful not to feed too much at a time, otherwise it may produce hoven. If soiled entirely, stock ought to be fed five times a day.—*Am. Agriculturist.*

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GUANO FOR CORN.—One of our neighbors let a piece of land to be planted upon shares with corn. He proposed to the laborer to try an experiment with guano on one portion of the field—should think about *one fourth*—while the other portion received a good coating of yard manure. The field being well prepared, and marked out so as to show the place for each hill, about one table-spoonful of guano was dropped in a place. It was then well mixed with the soil of the hill with the hoe. A little fresh dirt was then hauled over the compost thus made, and the corn dropped and covered. The result was such, that the owner offered to take the guanoed portion for his half of the crop. The laborer agreed to his proposition; and the owner actually got more corn from his part than the laborer did from the whole remaining portion of the field. This mode of applying guano is slow, but we think it amply compensates for the extra labor.—*W. E. Cowles, in Country Gent.*

Setting a Lot in Grass for Pasture and Hay.

In conversation with a friend some days since, he told us that he had a lot of about 1 3-4 acres, that had been manured and ashed, but which he had failed to set in clover, sowed with oats, last year, that the oats were so rank that they fell and rotted on the ground, and the clover died out—he stated also that he was anxious to put the lot in something next spring, but did not wish to sow oats again,—that the ground from being hilly was subject to wash very much, and therefore was not adapted to corn; that his desire was to get it in grass for the double purpose of hay and pasture, and enquired of us, how he should manage to attain his object; asking at the same time whether winter ploughing would not be of service. As there may be others, similarly situated, with similar aspirations, we will detail here, what our advice to him was.

We advised him, if his soil was stiff clay, to seize upon the first favorable period during winter when the ground was neither wet nor dry, but moist, to plough it, and to plough it horizontally, that is, across the hill, and turn the furrow slices down hill, to prevent washing:—and to be sure to plough deep. That next spring, he should roll first and then harrow until he should get the ground into a fine tilth, then roll again, when it would be fit to have the grass seeds sown thereon; that, prior to sowing the grass seeds, he should spread on his 1 3-4 acre lot, 7 bushels of bone-dust, and then sow his lot with the following grass seeds in the quantities named, viz:

- 1 3-4 bushels Italian Rye grass seed,
- 1 3-4 peck of Timothy Seed,
- 1 3-4 bushels of Orchard-grass seed,
- 20 lbs. of Red clover seed, and
- 1 bushel of Kentucky blue-grass seed.

To sow the timothy and clover seed, each separately by itself, and that he should mix the other seeds together and sow them, first *moistening* the orchard grass seed, and letting it lay in bulk a day before mixing it with the others. And that, after the seeds were sown, to harrow the whole in lightly with a *light* garden harrow, and roll the ground. We informed him that, as the Italian Rye grass was an *annual*, he might cut it for hay when it came in bloom, with the assurance, if the weather was seasonable, of getting a good crop. That as soon as he had cut, cured, and removed, his crop of hay, to sow on the field two bushels of plaster, and four

bushels of salt, and he might calculate on having a well set lot for many years, either for hay or for pasture, and that if he top-dressed it with four bushels of bone-dust, ten bushels of ashes, and four bushels of salt, in the autumn of every second year, and harrowed and rolled them in, it would continue to give him luxuriant crops of grass for 10 or 15 years.

As to the time of sowing the seed, we stated that we should be guided by the condition of the soil and weather in the spring—that whenever the soil was sufficiently dry and warm to cause the seeds to germinate, was the proper time for sowing them.

We added farther, that if his soil was not a stiff clay, we would defer ploughing until Spring, and until the frost was out of the ground, and the ground in a condition to be worked without injury.

Probable Effects of the War on Agriculture.

A correspondent of the Richmond Enquirer, writing from Liverpool, on the war, says, the spirit of the English is united in favor of the war, and that men and money will be voted for its continuance, by Parliament. He adds:

“Yet, when drained of her men, when so many thousands now engaged in peaceful pursuits are taken away, and the labor of the country thus manifestly lessened, who, I pray, are to furnish meat and bread for these vast armies, and the population that yet remains at home? There is not a mouth less to feed, and many less left to produce the necessary food for all, at home or abroad. Russia will send nothing from the Baltic, and the wheat-growing country on the Danube, and that which is watered by the many rivers entering the Black Sea, is ravaged by desolating war; and all that the people of the vast and rich country has for years sent abroad, and to England especially, will find for its diminished production consumers at home. Already are these considerations pressing on the English wheat and flour market, and keep up the prices, even after a good crop, which has been secured in a most admirable condition. Wheat sells now at rather higher prices than it did one year ago, and our own country can now but insufficiently supply either England or France. But let our people make less tobacco and less cotton, the next year, and the year after, and, I tell you, your millions of

wealth will be drawn hence to us, if, for these now staple articles, articles of wheat, corn and provisions be substituted. Clear up our lands, and put the utmost breadth of them in everything necessary for the food of man; and every article that is produced will find an admirable market the next year. True, our wheat crop is already in the ground, and its quantity cannot be increased. But our corn crop may—and that is an article which will pay much better next year than either cotton or tobacco.”

Popular Error about the Rise and Fall of Sap in Trees.

BY PROFESSOR LINDSLEY.

What curious hallucination is that which supposes the sap of trees to fall, or settle, in the winter, into the roots. One would have thought that the notorious difficulty of cramming a quart of water into a pint measure, might have suggested the improbability of such a phenomenon. For it certainly does require a very large amount of credulity to believe that the fluids of the trunk and head of a tree, can, by any natural force of compression, be compelled to enter so narrow a lodging at the root.

We shall assume the word sap to signify the fluids, of whatever nature, which are contained in the interior of a tree. In the spring the sap runs out of the trunk when it is wounded; in the summer, autumn and winter it does not, unless exceptionally, make its appearance. But in truth the sap is always in motion at all seasons and under all circumstances, except in the presence of intense cold. The difference is that there is a great deal of it in the spring and much less at other seasons.

When a tree falls to rest at the approach of winter, its leaves have carried so much more fluid than the roots have been able to supply, that the whole of the interior is in a state of comparative dryness, and a large portion of that sap which once was fluid, has become solid in consequence of the various chemical changes it has undergone. Between simple evaporation on the one hand, and chemical solidification on the other, the sap is, in the autumn, so much diminished in quantity as to be no longer discoverable by mere incisions. The power that a plant may possess of resisting cold, is in proportion to the completeness of this drying process.

When the leaves have fallen off, the tree is no longer subject to much loss of fluid by perspiration, nor to extensive chemical changes by assimilation. But the absorbing power of the roots is not arrested; they, on the contrary, go on sucking fluid from the soil, and driving it upwards into the system. The effect of this is, that after some months of such an action, that loss of fluid which the tree has sustained in autumn by its leaves is made good, and the whole plant is distended with watery particles. This is a most wise provision in order to insure abundant food to the new born leaves and branches, when warmth and light stimulate them into growth.

During all the winter period the sap appears to be at rest, for the re-filling process is a very gradual one. But M. Biot, many years ago, proved by an ingenious apparatus, that the rate of motion of the sap, may be measured at all seasons, and he ascertained it to be in a state of considerable activity in mid winter. Among other things, he found, that frost had considerable influence upon the direction in which the sap moves. In mild weather the sap was constantly rising, but when frost was experienced, the sap flowed back again—a phenomenon which he referred to the contracting power of cold on the vessel of the trunk and branches, the effect of which was to force the sap downwards into the roots, lying in a warmer medium; then, again, when the frost reached the roots themselves, and began acting upon them, the sap was forced back into the trunk; but as soon as a thaw came, and the ground recovered its heat, the roots out of which a part of the sap had been forced upwards, were again filled by the fluids above them, and the sap was forced to fall. A large poplar tree, in the latter state, having been cut across at the ground line, the surface of the stump was found to be dry, but the end of the trunk itself dipped with sap. Sap, then, is always in motion, and if it ever settles to the root, in a visible manner, that is owing to temporary causes, the removal of which causes its instant re-ascent.

As to the idea that the bleeding of a tree begins first at the root, and in connection with this supposition, that what is called the rise of the sap, is the cause of the expansion of buds and leaves and branches, nothing can well be more destitute of any real foundation. If in the spring, when the buds are just swelling, a

tree is cut across at the ground line, no bleeding will take place, neither will the sap flow for some distance upwards, but among the branches the bleeding will be found to have commenced. This was observed some years ago by Mr. Thompson, at that time the Duke of Portland's gardener, who thought he had discovered that the sap of trees descends in the spring, instead of ascending; a strange speculation enough it must be confessed. The fact is, that the sap is driven into accelerated motion, first at the extremities of a tree, because it is there that light and warmth first tell upon the excitable buds. The moment the buds are excited they begin to suck sap from the parts with which they are in contact; to supply the waste so produced, the adjacent sap pushes upwards; as the expansion of the leaves proceeds, the demand upon the sap near them becomes greater; a quicker motion, still, is necessary, on the part of the sap, to make good the loss; and thus from above downward is that perceptible flow of the fluids of trees, which we call bleeding, effected.

The well known fact, of trees sprouting in the spring, although felled in the autumn, proves that the sap had not at that time quit- ted the trunk to take refuge in the roots. Such a common occurrence should put people on their guard against falling into the vulgar errors on this subject.—*Working Farmer.*

What kind of Cows should Farmers keep.

What are the qualities necessary to constitute a good cow? A good milker alone does not, in our judgment, constitute a *good* cow; neither does a good breeder, nor a good feeder. It is these three qualities, combined, that make *the cow*. Give us a cow that is good for milk, quality as well as quantity, considered—that when properly bred to good bulls, will invariably produce good calves, and one that, when dried of her milk, will, with proper care and attention, take on flesh rapidly and evenly—and for one, we rest for a while, at least, satisfied. And till we can raise up an entire herd of cows, each one of which shall possess these excellencies, our aim shall be to advance in improvement till we can accomplish our object.

To possess the first of these qualities, a cow should have a fine head, a little wide above the eyes, but quite small below, and appear some-

what long. Her nose should be of a rich yellow color, or at all events, not black; (we do not know of any full blooded stock, of any breed, with black noses, but they frequently appear on stock as high bred as fifteen sixteenths.) Her neck should be very small where it joins the head, but widening and deepening as it approaches the shoulders and briskets.—Her udder should be of a good size, well covered with long, soft hair, and not inclined to fleshiness; large milk veins, and small delicate horns—they may be long in some breeds, but they should be fine, and she should have a yellow skin.

To be a good breeder, she should, in the first place, be descended from good stock, and the farther back you can trace her from good stock the better. She should possess all the before mentioned milking qualities, with a broad, straight back, wide loins and hips, long deep quarters, round ribs, bones small in proportion to her size, deep and full brisket, fore legs wide apart: and, lastly, she should be a *good handler*. A cow that is a good handler will also, almost invariably, produce rich milk; and if a first rate handler, and possessing the before mentioned qualities, she will be invariably a good feeder. This handling quality is, or has been, too much overlooked by breeders, and judges of cattle shows. Judges that will give in their decisions for premiums on stock, without even touching an animal, are, in our opinion, unfit for that office. We should not think of purchasing a cow for milk, stock and beef, without knowing her to be a good handler.—*Bowen's N. A. Farmer.*

Making and Preserving Butter.

The following article was communicated to the *Farmer's Monthly Visitor*, by a lady of the United Society, at Canterbury, N. H. The excellent economy of this Society, in every department of industry, gives an importance to their recommendations:

The pans or other vessels in which the milk is to be set, is to be made perfectly sweet by scalding, previous to putting the milk into them. A room in the basement story, where air will circulate freely, is preferable to a cellar, (when the weather will permit of it,) for setting milk. Forty-eight hours is a sufficient length of time, to raise cream for making butter, to keep through the winter season.

After the cream is taken off, the milk may stand the same length of time, but the cream that rises after the first forty-eight hours will not make the butter so palatable as the first which rises, and should be churned separate.

As soon as the cream is taken from the milk, it should be put into a tin pail, and set into a kettle of scalding water, taking care to stir the cream often, otherwise it will turn oily at the top; it should remain in the kettle until the cream is scalding hot, being particular to place it in a tub of cold water immediately. Stir it often, till it is nearly, or quite cold; if it remains long after it is hot, it will be injured much. It will be necessary to change the water once or twice before the cream can be perfectly cold. It may then be kept three or four days, before churning, without injury.

After the churning, the buttermilk should be partially worked out; then add one ounce and a half of salt, to one pound of butter. It may then be covered tight and stand till the following day; then work it over again, taking great care to work out every particle of buttermilk, which will prevent the butter from growing rancid by age. It may then be formed into cakes, or packed solid in a cask, which should be perfectly sweet and well dried.

The inside should be sprinkled, and a little fine salt rubbed thereon. After the cask is filled, dip a cloth in melted butter, and spread it snugly over the top; cover it with fine salt, and fasten up the cask sufficiently tight to keep out the air; it should then be set in a cool place, to remain through the winter.

N. B. A cask made of red oak staves is preferable to any other for preserving the original sweetness of butter.

It will add to the flavor of butter to work in a little sugar at the last working over; say, a tablespoonful to four or five pounds of butter.
—*Mercersburg Weekly Journal.*

Interesting from the Chincha Islands.

We have been favored with the perusal of a private letter from the Chincha Islands, dated the 19th February, which contains some items of public interest, which we are permitted to copy.

There were at the islands, at the date of the

letter, one hundred and sixty vessels of various sizes, from 300 to 2200 tons burthen—averaging probably 800 tons. The estimated average time for loading with guano was forty days.

The rate of exportation of guano from the islands is said to be one thousand tons a day, which it was thought would not exhaust the heap in ten years. A geological survey, made by order of the United States government, had estimated that eight years would exhaust the supply. We extract from the letter as follows:

“There are three of the Chincha Islands, lying in a line, N. and S., the passages between them being less than half a mile. The wind is always S. and E. and it is never known to rain. The North island is the largest. It is nearly circular, and about one-third of a mile in diameter, and about one hundred feet high. Some parts of the coast are steep, high cliffs, and others sandy and rocky coves of gradual ascent from the shore. The heap of guano continues to deepen to the highest point of the island, where it is one hundred feet in depth. Fancy a large, old-fashioned loaf of brown bread, laid on a table but little larger than the base of the loaf, and you can pretty nearly see the pile of guano on either island. The laborers commence digging and proceed along the top of the rock in the direction of the centre, from all parts of the island; and, therefore, in their progress, have shown the guano in the very steep side from the base rock, eighty feet high; and from every part it appears to be the same substance—hard and close.

“Every spoonful is dug with a pick, and when loosened is as dry as powder, and of course dusty. If left in a pile but a brief period, it again becomes hard, and must again be loosened with a pick; from the base to the top are found feathers, eggs, and stones of all sizes, some weighing even two or three tons. I have taken out many perfect feathers, far from the top; and near and upon the surface have seen what appeared to be bone and flesh decomposed.

“It is thought the pile now called guano, is the decomposition of sea animals, of which there are multitudes now, and they are presumed to have been far more numerous in ancient days, before the white man came to destroy. Sea lions of a large size—a ton weight—seals and endless quantities of sea fowls have been the inhabitants of these islands for myriads of years, and the islands have been the burial places of these animals; for if wounded they crawl up to the top—so say the knowing ones. Birds and bird lime go to increase the pile. Guano is really decomposed animal matter, but whether this was the way so vast a pile accumulated, or whether the islands were thrown up from the bottom of the sea with the deposit upon them, you must judge for yourself.

"The second island is similar in size and pile to the one described. The third one has not been touched yet. It is much smaller, but well loaded. Guano secretes large quantities of ammonia, and confined as it is in a ship's hold a man cannot stay more than five or ten minutes at a time among it. Besides large lumps of pure ammonia, are daily found apparently decomposed bones, eggs, &c., and among other items a man in a perfect state of preservation—the real ammonia, strong as volatile salts.

"Now do you wish to know how all those ships are loaded, and a thousand tons per day dug and sent from the island? Well there are about 100 convicts from Peru, and about 300 Chinamen from the Celestial Empire. The former are in the right place; the latter were passengers that engaged passage in an English ship for California, and engaged before they left their own country to labor after their arrival for a limited time to pay their passage (\$80.) Instead of being landed at California, the ship brought them direct to this place and the captain sold them for three and six years, according to the men, to work out their passage; and here they are slaves for life.

"They are allowed four dollars per month for their food, and one-eighth of a dollar per day for their labor, with a pile of guano before them which will last the next ten years; and long before it is exhausted the majority of them will be dead. Each man is compelled to bring to the shoot five tons of guano per day. A failure thereof is rewarded with the lash from a strong negro; and such is their horror of the lash, and the hopelessness of their condition, that every week there are more or less suicides. In the month of November, I have heard, fifty of the boldest of them joined hands and jumped from the precipice into the sea. In December there were twenty-three suicides; this is from one in authority; in January quite a number, but have not learned how many. I was a few days since on the South island, and there saw two of the most miserable starved creatures. They had swam across on their wheel-barrows, and fully determined to die. I could not feed them, and my heart ached for them; so after we reached the ship a boat was despatched with bread and water for their relief. Perhaps this availed nothing, for they must either return, or some one must feed them daily.

"The Chinese, it is said, are educated to believe in the transmigration of souls, and therefore think if they leave this life they shall return to their own country. It is thought that faith induces them to leave their wheelbarrows and commit suicide.

"Thus by diminishing the number of laborers, the exports are reduced, and to meet the demand of so many ships, two English ships (one of which has been here before) are soon expected with other loads of passengers from the Chinese dominions, deceived, most proba-

bly, with the idea of going to California to dig gold. In fact, it is said, the first batch of Celestials had dug many days before they were undeceived.

"The process of loading the ships is either by placing the ship close to a steep, rocky cliff, and have the guano run through a large canvas hose from the top of the hill into the ship's hold. Five hundred tons per day are put on board by this method; and as there is seldom much wind or swell, a ship can lie very well. Boats that go under smaller shoots, are sometimes loaded and return to the ship, where it is taken on board in tubs made of barrels."—*Boston Traveller.*

Corn and Potatoes Together.

The idea advanced by some, that potatoes planted in rows alternating with corn, would prevent the potato rot, induced many last year to try the experiment. As the potato disease did not prevail so extensively during the last season as usual, the results of the experiment in this respect are not so definitely ascertained as we could wish.

It has also been believed, by some, that this is a better mode of raising these two crops than by planting them separately.

We have been reminded of this idea by reading the address, delivered by Mr. Newhall, before the Essex County Agricultural Society, at their last Cattle Show. We find that he advances the same idea, and brings forward some facts corroborating it. Premiums had some years ago, been offered by that Society, for mixed crops of corn, beans, potatoes, &c. Mr. Newhall says:

"But one premium had been claimed, which was for a crop of corn and potatoes, planted in alternate rows; the experiment made at the time, by measurement of land and produce, showed that the mixed crop yielded some nineteen per cent. more than that which was planted separately, the corn and potatoes planted in this way, were mutual helps to each other; the potatoes shading the roots of the corn, and protecting it from the effects of drought, and the corn, in the months of July and August, screening the potatoes from the rays of the sun. The crops planted in this way, adding the value of potatoes in corn, yielding from eighty to one hundred bushels per acre."

Mr. Newhall quotes a remark of Lorain, on this subject, who says that he "frequently planted Indian Corn in single rows, eight feet asunder, and dropped single corn two feet dis-

tant from each other in the rows, so as to stand in single plants. When the corn was ridged, potatoes were planted in the clearing out furrows, which were filled with rotted dung, and closed by two furrows backed over the potatoes by the plow. I have had, repeatedly, forty to fifty bushels of shelled corn, and one hundred and fifty bushels of potatoes to the acre. In weight the corn always exceeded the best corn cultivated in the common way. The mode was suggested to me by General Washington, who told me that he had great success in it."

It is probable also that another reason why these two crops are better, (taking it for granted that there is no fallacy in the above named experiments) is this: The air can circulate freely through them, and the sun also has its genial effect, while the mutual shade which one crop gives to the other, tempers its rays, and prevents any excess of heat which would be injurious; in other words, the temperature is more uniform.

This experiment is so easily tried, that we hope it will be more generally instituted next summer, and its results noted.—*Maine Farmer.*

Root Crops.

The experience of the last year has clearly shown that the consumption of roots has materially increased, not only for the use of the farmer for feeding cattle, but from the great influx of foreign population, the amount of vegetable matter required for sustaining the inhabitants of our large city is not only greater than formerly, but particular in that class of crops known as root crops. The average price of carrots, parsnips, etc., has been more than double that of former years in the New York market. Ruta Baga turnips are now selling at 87 1-2 cents per bushel, Parsnips at 75 cents, Carrots at 50 cents, and Beets at similar prices.

With the present improved style of tools for cultivating root crops, they are scarcely more expensive during their cultivation than any of the ordinary crops. It is only in the digging or removal from the ground that a greater expense occurs, and this by the use of the Lifting Subsoil Plow is so materially lessened as not to be important.

The removal of such crops from the soil leaves it in high tilth for future crops, while the amount of constituents taken from the soil is

not so great as with many other kinds of crops.

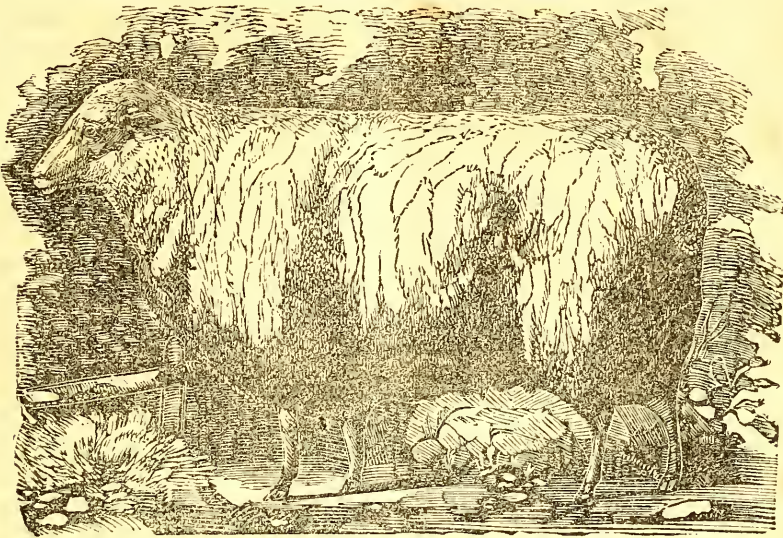
Carrots are now generally acknowledged to be of great value for fattening cattle, milch cows, and even for working horses; and so long as the same acre of land which will not produce more than 50 bushels of oats, can be made to produce over 800 bushels of carrots, it is evident that the latter is the more profitable crop of the two, and in the vicinity of large cities, if not elsewhere, should replace it as a crop.—We have raised during the past year, more than a thousand bushels of parsnips to the acre, and without any material pains-taking beyond good fair cultivation, and the use of 400 lbs. of Nitrogenized Super-phosphate of Lime to the acre.

The report of the Committee of the American Institute who visited our farm, gives a detailed account of our root crops, from which it will be seen that the average profit of each acre is greater than would accrue from ten or more acres of corn, wheat, oats, or any of the usual crops of the farm.

Cattle breeders and market gardeners are alike interested in the production of root crops; and, indeed, all farms within short distances of large cities, or where transportation to market is cheap, should appropriate a greater breadth of land to this culture.

The excuse for not raising carrots has been the labor of weeding, keeping clean, &c. We have already published the methods by which these difficulties may be readily overcome, and the improved tools now being made by Messrs. Ruggles, Nourse, Mason and others, for the cleaning of root crops, render their culture simple and easy.—*Working Farmer.*

SOUTH CAROLINA WOOL.—The *Charleston Mercury* says, the experiment of rearing fine breeds of sheep for wool, in the upper part of South Carolina, promises to be completely successful. Several gentlemen who have engaged in the trial have come to the conclusion that sheep flourish remarkably well throughout the State; that they can be raised at a trifling cost, compared with that of the wool-growing regions of the North, and that the quality of the wool of choice European breeds does not degenerate. Specimens of the wool have been rated by English manufacturers at the top of the market. The *Mercury* thinks that wool growing, if properly followed up, will prove a source of wealth to the upper districts of the State.



A COTSWOLD SHEEP.

The most Profitable Breed of Sheep.

There is much discussion upon the question as to the most profitable sheep. One party asserts that the true breed is the finest and purest Saxony; another is equally certain that it's the hard, gummy Merino; a third is opposed to all fine woolled sheep, and can only grow South Down: while still another can see no profit in any but long woolled and stately Cotswold or Leicester; while a great multitude are in favor of the Mongrels, obtained by a cross from a part, or all of the kinds mentioned.

The object of raising sheep, as of any other kind of farming, is to make money, to turn the annual herbage into cash. The best breed of sheep for the farmer to adopt, will depend, in a great degree, upon his locality. Whether near, or at a distance, from a good market for live stock, as large towns, or upon railroads leading thereto; whether in a grain growing or a grazing district; or in a warm or cold climate.

It is settled, that a fine staple of wool, cannot be grown upon a profitable carcass for the butcher. A large and early maturing sheep, like the South Down and Cotswold, cannot be made to produce a fine clothing wool. But the wool they do produce is valuable, and brings a remunerating price, especially the long wool of the Leicesters. The coarser and larger bodied sheep require a larger amount of pasture, and

cannot be kept in large flocks. For the farmer who keeps but few, say from fifty to one hundred, we should recommend the coarse woolled sheep. Many a farmer who can keep his fifty or sixty head, could make his two dollars annually, clear, upon each, with very little trouble. It would require care, and that is what a great many farmers complain of, though constantly grumbling about hard times. In a warm climate, and especially at the South, fine woolled Saxons should be preferred. The experience of years demonstrates that, in the growing of fine wool, the south need have no competitor, and we feel fully satisfied that it would now be the most profitable branch of their agricultural industry. There are flocks in that region, which produce wool that cannot be surpassed by any in Germany. Among them, and perhaps the very first, is the flock of R. Cockrill, Esq., of Nashville, Tennessee. For evenness, firmness, and strength of staple, his flock has not yet been out-done, by the very highest bred German flocks. Though there is little encouragement for growing fine wool anywhere, yet we would advise our friends South, not to abandon it, but to keep steady along, for it will not be many years before they will have the fine wool market entirely to themselves; for the amount of strictly fine Saxon wool, grown this side of the Ohio river, will grow less and less every year. Some men who have

superior flocks, like our friends, Reed, of Dalton, Ohio, and Ladd, of Richmond, Ohio, and who are fond of, and understand breeding, will continue them, and make them profitable. But we fear, that unless there is some great change soon, the Saxon will not spread North and West.

The great belt of our country lying north of the Alleghany mountains, and the Ohio river, and extending clear to the Rocky Mountains, seems admirably adapted for the Negreti and Infantada branch of the Merino families, as south of that line does for the Ecuria and Electoral branch. The best representative of this branch, is found in what is now termed the *Vermont Merino*. They are a hardy race, with thick heavy fleeces, full of gum and yolk, and formed to withstand well, the rigors of our hard winters. Like their congener, the Saxon, they delight in a dry soil, and will thrive upon pastures where larger sheep would starve. In Vermont, objections are made to this breed of sheep, by wool dealers, because the wool is so heavy, by reason of its gum and yolk. It may not be so profitable for them, but it shows the great value of the breed, for cold and bleak regions. But, as this sheep travels west, it loses this objection, for in this State, and throughout the west, the wool retains its fineness, but loses much of its superfluous gum and oil, but none of its vigorous constitution. Crossed upon the common breeds of Ohio, Michigan, and the other Western States, it produces a valuable breed; giving a finer and heavier fleece, and a stronger and more healthy habit. The breed is not confined to Vermont, but may be found in great purity in this State, and Connecticut, and Massachusetts. Among the best now in our mind is the flock of our friend, Mr. Dickinson, of Victor, whose communication on the subject of his flock can be found in the last volume.

It is not necessary here to particularize the various mongrel breeds, which have grown out of these great leading families. We believe one great cause of controversy has arisen from not taking a true view of the great and natural division of our country, into northern and southern wool growing sections. Around large cities, and upon small farms, coarse woolled sheep will be found the most profitable; while in the milder climate of the south, the Saxon; and in the colder regions of the north, the Merino will be found the true breed.—*Urbana Citizen*.

Profit of Keeping Sheep.

It has been frequently demonstrated, that a farm which will support four or six cattle, will support forty or fifty sheep at the same time, with very little increase of labor, when the horned cattle could not be increased with any profit. Sheep eat, both summer and winter, much that neat cattle will not, and it appears to be a settled fact that pastures are improved by them, and their droppings in winter furnish a valuable manure, particularly when fed on turnips and grain, as they always should be.

One flock-master in Michigan calculates the income of his sheep in the value of fleece and increase at \$2,10 per head. He estimates the cost of wintering at only fifty cents a head. He feeds wheat starw, and wheat bran and shorts. We are satisfied that sheep can be wintered at the west for less than fifty cents each. The great difficulty upon all new farms is the want of suitable shelter. This destroys many valuable animals. Sheep are as subject to colds as the human family, and may die with similar diseases.

WORMS IN THE HEADS OF SHEEP.—Now these worms themselves in the heads of sheep are no disease, nor in any ordinary cases, at least, the causes of disease. What people call "Worm in the Head," and "Grub in the Head," and all that, and for which snuff and tar, and turpentine are prescribed, is nothing more than a severe cold, with inflammation of these lining membranes. When, however, that occurs, it is very likely that the insects would prove a fresh source of irritation; since they would be wholly, or in a measure, deprived of their accustomed food, which is the natural secretion of this membrane; and that being themselves uneasy they would cause uneasiness to the subject.—But that in health they do no harm, is evident from the fact that no sheep is without them; even lambs six months old or younger will carry them.

What is the proper treatment? This must be evident. It is *not* to endeavor to reach the worm with any liquid, since this is utterly impossible, but to treat the animal for a cold; and our idea is, that a sheep is to be dealt with for any disease on essentially the same principles as is a man. It is very likely that some of the mixtures squirted up the noses of sheep—merely to run down their throats, for they can run

nowhere else—have done some good—allaying the inflammation in the head, and restoring the animal to a healthy condition, when all would go on as before.

To treat a sheep for “worms in the head,” *put him in a warm place* for the first thing, either in a warm room or on the sunny side of the house or shed, where the cold cannot reach him. How can a man get cured of a cold in his head if he keeps out in a cool wind? No more can a sheep. Then if this is not enough, apply warmth to his head or feet, or both, and if anything is given him, let it be something to restore his system to its natural action. Tobacco will very likely do good, since we have, ourselves, checked a forming cold by being sickened with a segar. But do not torment the animal by trying to squirt such stuff up his nose; the smoke in his nose is better than any other application of it; and, above all things, do not imagine that you can kill or rout the grubs by any such injections, without killing the sheep.—*Prairie Farmer.*

AMERICAN HOPS.—Hops are becoming an important article of foreign as well as of domestic commerce. We are now supplying the English market with the growth of 1854. The hop trade of this country is destined to be one of vast importance, but, as yet, we produce comparatively but few, the breadth of land devoted to their cultivation not exceeding eight thousand acres, chiefly in New York and East. The average crop and consumption hitherto has not exceeded twenty thousand bales of 200 lbs. to the bale. This year's growth goes beyond the average by at least six to eight thousand bales, and a brisk export demand is the result at remunerative prices—forty cents per pound. Already the exports amount to five thousand bales, worth at least the large amount of four hundred thousand dollars! There is every probability of the foreign demand continuing, as prices range in England from eighty to one hundred and twenty cents per pound, whilst fifteen cents will cover all expenses of shipment, sale, duty, &c. Should this foreign demand continue another week or two, we shall be left with a deficiency on this side, and as malt is seventy-five per cent. above the average price of the past twenty years, brewers will have to advance their prices from five to seven dollars per barrel for the genuine article.

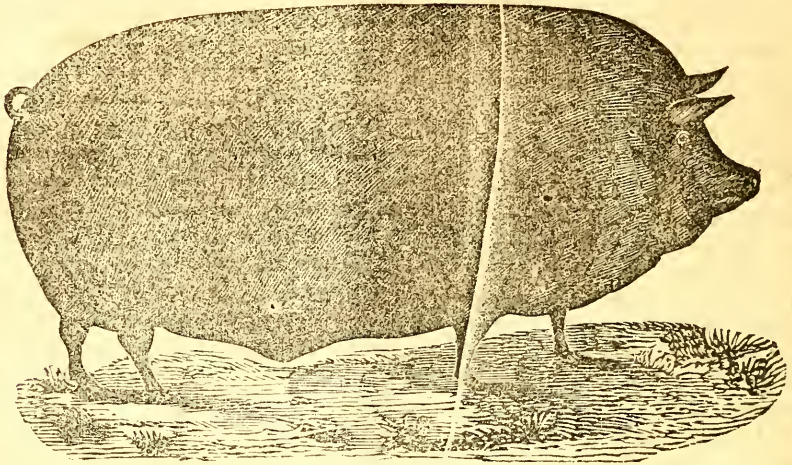
From the Albany Cultivator.

Necessity of Manuring.

It is obvious that the manuring of a farm should only be limited by the ability of the owner. On a plentiful supply of manure, is depending the fertility of his soils, the amount of his crops, and consequently the extent to which his labor is rewarded. There is no expenditure on a farm, so safe as that for manure; and the labor required to increase it, is never labor lost; at least, if directed by an ordinary share of agricultural knowledge and skill. Every source of supply should be made available; nothing capable of fertilizing should be lost.—The farmer who takes from his soil more than he returns to it, is surely impoverishing it; and if he escapes such a calamity himself, he leaves to his successors a worn-out farm. If he returns as much as he receives, his farm will retain its original fertility only; but the true farmer will scarcely be content with this. To *increase* its fertility, and the amount and quality of the crop taken from the soil, should be the aim of the husbandman. This done, his labor is lessened, his profits are greater, his farm is worth more; nor must the *pleasure* arising from beautiful fields, golden harvests, fine animals, accumulating prosperity, be omitted in making up our estimate of the advantages of successful culture.

Manure may be a homely subject, but on its preparation and use, everything is depending. Without it, the deep green of our pastures, the golden yellow of our corn-fields, and the fine beef and white loaf of our tables, could not exist. To the farmer, manure must be the first thing, and it must be the last thing: with it, he can do everything—without it, nothing.

TO CURE GARGET IN COWS.—Mr. C. R. Vaughan, of Norridgewock, informs us that he has cured a severe case of Garget in one of his cows by the use of sulphur. He gave about three pounds of the flour of sulphur to the cow in the course of three days, in bran. It effected a complete cure, and although she was badly affected, with this disease previously, she had no signs of it since. He says his stable *didn't smell very well*, during its operation, but it soon passed away. This can be tried by any of our farmers who have cows troubled with this disease. It will be seen that Mr. E. did not administer it in Homœopathic doses.—*Maine Far.*



A SUFFOLK PIG.

Compost Heaps.

The following is from the prize essay of J. L. Morton, read before the Highland Agricultural Society of Scotland. The subject is one of interest and importance. The prudent farmer will avail himself of the excellent suggestions contained in this article.

The cleanings of roads do not only contain excrementitious matter, but silica, potash and mineral substances required in the growth of plants are also present. On clayey soils, road cleanings are of great use in rendering their texture more porous and less difficult to work. If the farmer is attentive to the gathering together of every description of road scrapings, and mixing them with slaughter-house refuse, or similar substances, a large quantity of most valuable manure will be obtained during the year, at a comparatively trifling expense. Where blood, flesh, or other animal substances are being decomposed, a large amount of nitrogen, in the form of ammonia, and also some phosphates are produced; and unless these be taken up by materials with which such animal matters are surrounded, a serious loss must be the result. For such composts, the cleaning of ditches and other earthy matters can be more profitably used than any other ingredients. Often, blood and other fleshy substances are thrown into dunghills, but in this a double loss is sustained. The rapid decomposition of the animal matters promotes an injurious decomposition of the ordinary manure; and, on the other hand, the latter is all adapted for taking up the liberated ammonia. All the earthy

matters, then, which can be collected on the farm, ought to be stored up in heaps, in the formation of which the different kinds of soil should be mixed together. Lying in this state for some time, and occasionally turned over, the mass will be improved even without the application of other ingredients; but the most profitable method of managing it, is to employ such fertilizing matters as may be available for enriching the earth. When horses or cattle die, they are very frequently buried without any thought being taken of the value of the carcasses as manure. Where such heaps of accumulated soil or road scrapings are at hand, nothing will make better manure than the bodies of dead animals decomposed in the centre of the heaps. By the carcasses being cut up into pieces of suitable size, and thoroughly mixed with the earth, a soapy mass will be produced, remarkably potent as a manure. To promote decomposition, the heaps may be turned over once or twice, and after the fleshy matter has been severed from the bones, the latter can be gathered together, to be reduced in the bone mill. Taking the average weight of worn-out horses at six cwt., and the price they are sold at when sent to the dogs at six shillings, (about \$1 50) each, we have a very valuable manure for twenty shillings a ton, besides allowing the skin to pay for the dissection of the carcass. Surely this is cheap guano, even were it three times the price. Or, taking the average weight of animals dying from pleuro-pneumonia, at four cwt., we may safely estimate the value of each carcass at twelve shillings as manure. If

this is the case, why is so little attention paid to the bodies of dead animals, that we should see them frequently buried five or six feet deep, or cast into some out of the way pit, where they can serve no useful purpose whatever. Almost every farmer, it is to be feared, has now and then, dead beasts about his place; and though the carcass should be that of any of the smallest domestic animals, still, if converted into manure, each one possesses a money value which should not be despised. Here than are two of the refuse matters of the farm which may be advantageously used together—(1) the cleanings of roads and ditches, available in almost every case, and (2) the carcasses of dead animals, obtainable in more cases than could be wished; both of them being rendered of great fertilizing value, by being mixed together.

From the Northern Farmer.

Cultivation of Willows.

The cultivation of willows for osiers is a subject which has attracted considerable attention within a few years, but it is a subject that is not well understood in this country; therefore, I trust that a few remarks from a plain farmer, and one that understands the business, may not come amiss to many of your readers, though I have not the necessary qualifications for a writer.

It has been supposed till within a few years that the European Osiers would not grow in this country, and the importers of willow have always said that they *could not* be cultivated here; but within a few years some enterprising men have imported cuttings of the best varieties of willow grown in Europe, and have found that some varieties will grow here better than there, while some that are valuable there are worthless here. The *Salix viminalis* is decidedly the best variety for cultivation here. I have cultivated several kinds myself, and am fully satisfied, that that is the best kind, though there are some that still sell cuttings of other varieties; but they will prove unprofitable for anything but making hedges, or live fences.

The *Salix viminalis* grows from eight to ten feet high, and never throws out branches. This variety should be planted in rich ground, the rows should be two and a half or three feet apart, and the cuttings one foot apart in the rows. They should be cultivated the first year about the same as corn, and the second year a cultivator may be run through them a few

times to advantage. The first and second years they will produce but little, but the third year a full crop may be obtained, and every year after. Under very favorable circumstances an acre will yield three tons, but two tons may be considered as a fair average yield on good soil. They are cut early in the spring, as soon as the snow is off, and bound in bundles, and set in water sufficiently deep to have all the ends touch the water. There they must stand until the bark will start, which will be some time in May, when they must be peeled, and allowed to dry a few hours in the sun, when they may be tied in bundles, and are ready then for market. In binding them for market, they should be packed with the butts both ways, and tied very tight with strong twine. The bundles should be about one foot in diameter, and such will weigh 40 or 50 lbs. each. They are worth in any of our large cities, from six to eight cents per lb., according to quality, the finest being worth the most. There are between five and six millions of dollars worth imported annually, and sold at that price. But very little has been furnished by American growers yet, but what has been furnished, is acknowledged by all to be better than the imported, and will command a higher price. As to the profits of cultivating willows, there is no crop that I am acquainted with that will compare with it. The whole cost of cutting and peeling will not exceed \$40 per ton, when peeled by hand, and a very simple machine, lately invented, will reduce that cost over one-half. This new machine, which is the first one ever made for that purpose, will peel willow better than can be done by hand. It is made principally of India rubber, so that it adapts itself to any sized willow, and it is very simple, and not likely to get out of order. This machine not only lessens the expense of peeling, but a greater advantage to be derived from it, will be the amount of work that it will do in a short time, thereby allowing any one to cultivate just as many acres as he likes, which he could not do and peel them by hand, unless he lived near some large city or town, where he could obtain a great amount of help for a short time. Some may think that there will be difficulty in finding a market for a large quantity of willows, but I can assure them that there is no danger of the market being overstocked. Every one acquainted with the business knows that the

importation, large as it is, fails to supply the demand, which is increasing rapidly every year. It would require 50,000 acres of the best land to produce willows enough to stop their being imported into this country, and before that amount can be raised, the demand for them will be more than doubled.

Solon Robinson, in writing on this subject, in the *Plow*, for 1853, says:—"There is no fear about finding a market, notwithstanding the powerful opposition of importers, to American willow. Wherever known by willow workers, the native product is always preferred to that imported, and the time will come when Americans will just as soon think of importing hoop pools as they will basket willows. One of the reasons we give for this prediction is, because our soil and climate will produce it equal to any part of the world; and if our labor is dearer, our land is cheaper, so that we can successfully compete with any other cultivators as to price, while in point of quality, we can certainly excel that which is subjected to damage by breakage, bruising, damp and mouldering in a ship's hold. In cleanliness and whiteness, we certainly can excel the imported article; besides, that sent to this country is frequently the refuse, or cullings of the French basket makers, who retain the finest portion for their own manufacture.

There is another inducement to encourage the immediate extensive cultivation of the osiers in this country. England imports large quantities from the continent to supply the demand of the immense consumption which her own cultivators are unable to supply. Why, then, should not we come in for a share in that trade, and become exporters, instead of importers? In short, I believe that no kind of crop offers greater inducements to American cultivators, and none more worthy the attention, and fostering care of agricultural societies, than this on which I am now writing."

Much more might be added, from American writers on this subject, but I think this is sufficient to prove that it is a business that claims the attention of American cultivators.

Our present supply is derived mainly from France and Germany. England produces large quantities. One man, the Duke of Bedford, has one thousand acres, but still she does not produce enough for her own consumption.

GEO. J. COLBY.

Agricultural Societies.

Orange Agricultural Society.

A meeting of this Society was held, on Thursday of last week, in the Grand Jury room—the Grand Jury having so arranged their sessions as to give place for the meeting.

The committee appointed to select a suitable place to be fitted up for a permanent Fair Ground, reported that a convenient situation could be procured from the Misses Thompson, on the South side of the river, near the Rail Road, at \$10 per acre; that it was convenient to water, and could be enclosed at comparatively little expense; and though not presenting so good a surface as could be desired, yet by procuring a sufficiency of ground to select from, the committee were of opinion that it might be made to answer the purpose.

The report was received, and the committee was authorized to purchase twenty acres, to have the necessary surveys made, and to take a deed for the land.

Several names were added to the list of members.

The remainder of the time was occupied in an interchange of views upon agricultural subjects. Mr. Norwood stated a fact which may be interesting to many of our readers. He had found, by experiment, that the Summer Turnip can be kept perfectly sound during the winter. Within a few days he had had some on his table, and they were as good turnips as he desired to eat. They were excellent also for stock. His mode of keeping was this: While the turnips are in the ground, he has the tops cut off with a hoe just as they begin to turn red, and then they are ploughed up. In this way they are easily gathered. He then puts down rails in the place where they are to be packed, and covers the rails with a layer of corn stalks. Along the centre of the heap, some two feet apart, he has upright stakes placed, and then packs away his turnips, and covers them up. After they have become settled, the upright stakes are withdrawn, leaving a space for ventilation. This is a simple mode of keeping them, and easily practiced. And when the value of these turnips, both for the table and for feeding stock, is considered; and when we also take into the account the fact

that they do not occupy the ground exclusively, but may follow some other crop in the same year; it would be well for our farmers to pay more attention to raising and keeping them for winter use.

In confirmation of the value of the turnip as feed for stock the President mentioned a fact recently stated in one of the agricultural journals, which we quote. A sheep raiser at the North determined to try the experiment of wintering his sheep on two acres of land. For this purpose he planted the two acres in corn, and at the proper season sowed turnips between the rows. The corn was removed before ripe, and weighed, stalks and all, just twelve tons; the turnips when gathered, weighed eight tons. Upon these crops he kept 100 ewes with their lambs through the winter!

After the conversation had ended, there being no other business, the Society adjourned to Saturday of May Court.—*Hillsborough Recorder*.

Warren, Franklin and Granville,

At a meeting of the Committees on the part of the Agricultural Societies of Warren, Franklin, Granville, and the friends of a union of the three counties in holding an annual exhibition or Fair in the town of Henderson, John D. Hawkins, of Franklin, was called to the chair, and Charles Wyche, of Granville, appointed Secretary.

At the request of the chairman, Dr. R. C. Pritchard, of Warren, briefly stated the object of the meeting to be a union of the three counties, and permanently locating and improving the Fair grounds.

Dr. A. C. Harris, of Granville, on the part of the committee consisting of himself, Dr. G. W. Blacknall, and R. P. Hughes, appointed at a previous meeting to examine and fix a location, reported having had the subject fully under advisement, and recommended the purchase of the lot at present enclosed, and sufficient adjacent lands to enlarge the grounds to a capacity, for the purpose contemplated; whereupon Dr. Pritchard offered the following, resolution which was unanimously adopted:

Resolved—That the following named gentlemen be requested to act as Committees, in their respective counties, to solicit subscriptions in behalf of the proposed Union Fair, and report to a meeting, to be held in this place, on the first Tuesday in April next.

For Granville—W. A. Eaton, Dr. O. F. Manson, Dr. John R. Herndon, T. Miller, R. A. Hamilton, S. S. Royster, Dr. G. W. Blacknall, Major J. F. Harris, Major B. Bullock, James Turner, Hon. A. W. Venable, Isham Cheatham, Isaac H. Davis, R. P. Hughes, Dr. A. C. Harris, and Thomas L. Williams.

For Warren—Dr. R. C. Pritchard, William A. Burwell, John B. Williams, James T. Russell, William Plummer, Whit. Kearney, T. N. F. Alston, Henry Hunter, Dr. William Hawkins, Dr. A. B. Hawkins, Nathan Milam, John Yancey, Joseph S. Jones, H. J. B. Clark, Dr. Thomas J. Pitchford and J. W. Hayes.

For Franklin—Dr. E. A. Crudup, Gen. J. B. Littlejohn, Robert Gill, Col. Phil. B. Hawkins, Dr. Wiley Perry, Arch. Williams, Jos. A. Whitaker, Dr. Peter Foster, Dr. R. P. Toney, Etheldred Green, John Davis, Dr. Wood T. Johnson, N. B. Massenberg, Allen Perry, John D. Hawkins and Oscar Green.

On motion of Dr. A. C. Harris, it was

Resolved.—That the friends of agriculture, and of the project of holding a Union Fair, at Henderson, of the counties of Warren, Franklin and Granville, be earnestly requested to co-operate with the Committees appointed in the several counties, in furthering the object contemplated.

Drs. G. W. Blacknall, A. C. Harris and P. W. Wyche, were appointed a committee to ascertain the cost of the proposed lots and the necessary improvements.

On motion, the papers published in Warren, Louisburg and Raleigh, were requested to publish these proceedings.


The meeting then adjourned to the first Tuesday in April next.

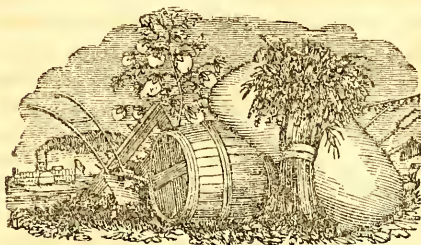
C. H. WYCHE, *Secretary*.

Henderson, Granville, Co., N. C.,

Jan. 30, 1855.

RIFE TOMATO PICKLES.—Select handsome sized tomatoes, wash them and prick them with a fork, lay them in dry salt 24 hours, then soak in equal quantities of vinegar and water for 24 hours: take them out and lay them down in a crock, with sliced onions, first a slice of tomatoes, and then onions, with cinnamon, cloves, and brown sugar, and then cover the whole with good cider vinegar.

 When an implement is no longer wanted for the season, lay it carefully aside.



The Carolina Cultivator.

RALEIGH, APRIL, 1855.

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Agricultural Improvement.

A great deal has been said and written for some years past, in this country, about the *science* of Agriculture, and the chemical principles involved in it. Much valuable generalization has been attained in the labors of the laboratory, and by the arrangement, or comparison, of scientific facts. But, perhaps, we are in danger of over estimating the instruction to be derived from these sources, and of forgetting, to some extent, that Agriculture is also an *art*; the perfection of which depends far more upon the skilful application of knowledge already acquired, than upon any new revelations of philosophy. The truth of this statement must be apparent, when we remember that the highest ambition of the American farmer, however learned he may be, is to show results from his labors, equal to those which, in some of the older countries, have for centuries rewarded the industry of the husbandman. He will have reason to be proud, when he sees the soil of his own country rivaling, in productiveness, the exuberant fields of Belgium, Egypt, or China, which have been rendered what they are by the traditional care and patient perseverance of many centuries.

When we come to investigate the method by which the ignorant peasantry of these old countries have gradually overcome all natural, social, and political difficulties, and forced a reluctant soil to sustain a teeming population at home, and even to supply the people of far more civilized lands with the staff of life, we find but one solution to the enigma, in the extreme carefulness with which the simplest means are made subservient to the desired end. In other words, the secret of success in the cultivation of the soil, in every part of the world, resolves itself into that little word, *economy*.

Look, for example, at the small country of Belgium, which, notwithstanding the fact that it has been the theatre of more wars, and suffered devastation from more invading armies than any other portion of Europe, continues to this day to be cultivated like a continuous garden, and contains a population of nearly 350 to the square mile. The small farmers of Belgium are generally an unintelligent and unlettered race. To them, agricultural societies and agricultural publications are almost unknown; and they trouble their heads very little about chemistry or geology. But, in spite of these disadvantages, they are among the best farmers of Europe. Every inch of their little fields is made to produce something that will contribute to the support of animal life, and still the soil goes on improving under the process of cultivation. Ask them how it is done, and they can give you but little information; but observe them in their daily occupations, and you cannot fail to discover that they excel in the strict economy of *time*, *space*, and *material*.

By economy of *time*, we mean that watchful assiduity with which the farmer, who is anxious to succeed, must attend to everything in its proper season, and employ his whole time with untiring devotion to the business in which he is engaged. If we are not mistaken, this is one of the principal points in which American farming is defective.

The economy of *space*, is that which we can hardly appreciate in this country, where "ample room and verge enough" is enjoyed by every one who calls himself a farmer. But here lies one of our radical errors. Every unnecessary step taken in the process of cultivation, is time and labor lost. The efforts of the farmer should not be to extend the *area* upon which he oper-

ates, but to concentrate his energies upon a comparatively small space around the homestead.

The economy of *material* is still more important, by which, we mean, the obvious care necessary to remunerate the soil for that which is abstracted from it. The preservation of the soil absolutely depends upon the attention which is paid to this great principle. All the varieties of agricultural products remove from the land by which they are nourished, the materials necessary for a succeeding crop. Unless an equivalent for this loss is supplied, either by rest or by artificial means, the soil must necessarily deteriorate by the process. All acknowledge this. It is plain, therefore, that the economical preservation of everything that tends to compensate for this loss, is an object that can never be lost sight of by the farmer who is unwilling to sacrifice his future resources to his present interest.

Rural Architecture.

Many lives are annually lost in our Southern States from exposure to cold in ill-constructed houses. Not to speak of the poor, who are unable to provide themselves with sufficient shelter; those who have ample means are too apt to neglect proper precautions against the inclemencies of winter. People reason in this way, that as cold weather can last but a short time in these latitudes, it is not worth while to provide very carefully against it. But here is where they are mistaken. The influence of very severe weather upon constitutions unaccustomed to it, must necessarily be full of danger. Experience fully confirms this. Pneumonia, and other acute diseases of the chest, have already carried off many this season, whose lives might have been saved, if they could have had warm rooms to repose in.

There is an idea very prevalent with our people, which we would be glad to see renounced. We refer to the notion that free ventilation, in the coldest weather, is necessary to health.—Ventilation is very important, but it is carried to excess, when the cold cutting blasts of an unusually severe winter, are allowed to penetrate every apartment, and chill the delicate frames of women and children.

Our houses should be so constructed, as to allow them to be made comfortable in the cold-

est weather. This would not prevent a free ventilation at all other seasons of the year. It is a law of nature, with lower animals, that they must house themselves from the rigors of winter. Man, guided by his reason and experience, must conform to the same rule, or incur a terrible penalty. Many people in good circumstances leave their dwellings for years in an unfinished state, and satisfy themselves with a vague intention to complete them hereafter.—To such persons we would say, fulfil your intention before another winter comes round with its horde of diseases, enlisting recruits for the grave.

LOOK TO YOUR GARDENS.—That little patch of ground called a garden, is often regarded by the farmer as beneath his notice. This is a very erroneous estimate. A well-tilled garden is the most profitable part of a farm, as might be easily demonstrated. It contributes largely to the maintenance of the family, and saves the consumption of much of the more substantial produce, which may find its way to market.


We are greatly obliged to our correspondent "Up North," for his very acceptable and seasonable letter. We hope to receive further communications from him. He is perfectly correct in representing Western North Carolina as a fine country for sheep. We believe it will not be long before the fact will be practically demonstrated. He also broaches a very important *principle*. We have long believed that a diversity in the objects of culture, should always be regarded by the farmer as his chief security against the vicissitudes of the seasons and of commerce, and the soil and climate of our State are probably as well adapted to such diversity as any in the world.

Secretaries of district or county agricultural societies would confer a favor on us, by communicating to the Carolina Cultivator the names of the officers and times of meeting of such societies. Such information will always be of interest to some of our readers, and may serve the purpose of a good example to others.

We again invite practical farmers throughout the State to enrich our columns with the results of their experience. Compare notes freely, and let your *light* as farmers shine upon your neighbors.

NUMBER TWO.—We issue this our second number in beautiful new type, and submit it to the public on its merits alone. The endorsement of several individual members of the Executive Committee of the State Agricultural Society, published in our last, was not intended by the signers or ourselves, to be understood as an official act, but as an emphatic recommendation from gentlemen officially connected with the Society. We ask nothing but a fair examination, and a liberal support.

ACKNOWLEDGMENT.—We are under many obligations to our friends of the press for their liberal commendation of our paper. It is highly creditable to the public spirit by which they are actuated. We intend, as far as we can, to justify their favorable notices, by making the Carolina Cultivator worthy of the great farming interest of the State, for the advancement of which it has been undertaken.

 We invite attention to the advertisement of Messrs. Thos. Betts & Co., importers of choice stock, in New York. These gentlemen also send us an interesting circular, descriptive of the qualities, prices, &c., of the different varieties of English cattle, sheep, and swine in which they deal.

The *Scientific American* very properly suggests the importance of our farmers putting in large corn crops this year, in view of the probability of continued hostilities on the Continent of Europe. If the war should continue, the exportation of grain from the wheat countries on the Black Sea, and also from Poland, must be greatly diminished. An increasing demand for American produce, will follow, of course, and we should be prepared to meet it.

United States Agricultural Society.

This society held its annual meeting at Washington, D. C., commencing on the 21st of Feb. Twenty-six States were represented by accredited delegates from State and County societies. The exercises opened with an address from the President of the society, Hon. Marshall P. Wilder, in which he recapitulated the operations of the society during the past year. This address was well received, and has been printed in pamphlet form for distribution.

A variety of resolutions, &c., were discussed, and an address delivered in the evening, by the venerable George Washington Park Custis, after which the officers and committees were entertained at the National Hotel with a sumptuous repast by Col. C. B. Calvert, the proprietor of "Riversdale." On the second day, Mr. King, of New-York, reported from the nominating committee, consisting of one from each State, and the following officers were chosen for 1855:

PRESIDENT.

MARSHALL P. WILDER, of Massachusetts.

VICE-PRESIDENTS.

John D. Lang, Maine,	J. T. Worthington, Ohio.
H. F. French, N. H.	B. Gratz, Ky.
Fred. Holbrook, Vt.	M. P. Gentry, Tenn.
B. V. French, Mass.	Jos. Orr, Ind.
Jas. J. Cooke, R. I.	J. A. Kinnicutt, Ill.
John T. Andrew, Conn.	Thos. Allen, Mo.
Henry Wagner, N. Y.	T. B. Flournoy, Ark.
Isaac Cornell, N. J.	J. C. Holmes, Mich.
Isaac Newion, Pa.	Jack son Morton, Fla.
C. H. Holcomb Del.	T. G. Rusk, Texas,
H. G. S. Key, Md.	J. W. Grimes, Iowa.
G. W. P. Custis, Va.	B. C. Eastham, Wis.
Henry K. Burgwyn, N. C.	C. J. M. Horner, Cal.
James Hopkinson, S. C.	Jos. H. Bradley, D. C.
D. A. Reese, Ga.	S. M. Baird, New-Mexico.
A. P. Hatch, Ala.	H. H. Sibley, Minnesota.
A. G. Brown, Miss.	Joseph Lane, Oregon.
J. D. B. DeBow, La.	J. L. Hayes, Utah.
Gen. Whitfield, Kansas,	Mr. Giddings, Nebraska.

EXECUTIVE COMMITTEE.

John A. King, N. Y.	B. Perley Poor, Mass.
C. B. Calvert, Md.	A. Watts, Ohio,
A. L. Elwyn, Penn.	John Jones, Del.
J. Wentworth, Illinois.	

SECRETARY.

WM. S. KING, Boston, Mass.

TREASURER.

B. B. FRENCH, Washington, D. C.

On a report of the executive committee, Dr. Elwyn, of Penn., Henry Wagner, of New-York, Dr. W. T. G. Morton, of Mass., Col. Anthony Kimmel, of Md., and Chas. L. Flint, of Mass., were appointed delegates to attend the coming Industrial Exhibition at Paris.

A great variety of reports were read, which will be embodied in the forthcoming volume of the proceedings of the society. This will be furnished to the members, and will of itself amply repay the expense of membership. We defer further reference to the doings of the society till the reception of the official record of transactions.

Communications.

For the Carolina Cultivator.

Seeding Corn.

After having well ploughed your land run a heavy Iron tooth harrow over the ground, I do that and then cover the corn with a wooden tooth harrow as follows: I run a heavy Iron tooth harrow over the ground, teeth in front seven and a half inches long, behind, five inches, tapering all the way i. e. different lengths; I follow this harrow with a narrow bull-tongue one made for the purpose, for by having one too wide the corn will be put in the ground too deep and will not come up well. Have your whole field harrowed and laid off before you stop; then cross these rows at distances of about forty feet. Now drop your corn in the drill about twelve inches apart, one grain going from one of these land furrows as I call them to the other and thus proceed until you cross the field in that way. When you get that land dropped, have a good wooden tooth harrow with about fifteen teeth and five feet wide; run across these rows where the corn is dropped, going first on the outside with the land furrows and harrow on thus until you finish that land. Whilst you are harrowing this land have other hands dropping you another, and so on, until you finish. Rows should be about four and a half feet, and the corn in the drill dropped from ten to twelve inches, though if the land be very rich it may be a great deal closer than this. I prefer dropping for a double stand. Therefore if you want your corn to stand two feet, drop it one foot apart in the drill, and if eighteen inches, we drop it nine inches and so on. It can be very easily thinned either with your hoe whilst chopping it over or with your hand as you prefer. You will be very apt to get a good stand by dropping for a double stand, and a choice of stalks also, which is another great desideratum. I planted corn in this way last spring and got the best stand I think I ever saw. The harrow teeth should be flated a little to scrape the ground and fill up the furrows. Your harrow, though, must not be so heavy as to drag the corn; out of its way, you can very easily ascertain this by sticking up a peg by a grain of corn after the harrow goes along, notice and see if it is moved out of its bed. A good hand and

harrow can cover a bushel and a half of corn per day, which is much faster and much better than the old mode. The corn comes up much better covered with a harrow than with a hoe for leaving the soil loose it is not so apt to rot in damp soils as when covered with the hoe. Having seen an article in the Journal about covering corn with a harrow, led me to try it last spring. That article though did not say whether to run lengthwise with the rows or across. I tried both ways, and like crossing the best. Try it farmers.

Very Respectfully,

ALIQUIS.

For the Carolina Cultivator.

A LETTER FROM A N. Y. FARMER.

MY DEAR SIR—

I am a stranger to you and to your State, but am no stranger to the difficulties which those who seek to establish agricultural papers, and especially in those States where agricultural improvement has not made great progress, have to encounter.

I have been reading up here in my northern home, surrounded with snow and all the accompaniments of a cold winter, your first number of the Cultivator, and I can see, and it greatly rejoices me to thus behold, that the spirit is abroad in your State. A light has been kindled that will not go out, but grow brighter and brighter for all time. You will have much trial and tribulation with your valuable paper: but I can see that there is a spirit among your leading men that will sustain you, and that in the end you will make yourself felt and heard in the great cause. One thing is certain, that no State Society can be permanently prosperous that does not sustain an Agricultural Journal.

Looking at your State upon the map, it seems to me that she possesses very great agricultural capabilities. Your climate being so mild, I do not see why your hilly and mountainous portions may not become some of the finest sheep-walks in the Union.

It is in diversified agriculture that the most profit is usually made by the farmer. For, when but one branch is adopted it often happens that the uncertainty of the season, the stringency of the money market, or other circumstances, or contingencies may make a great difference in its value, while others may be

very valuable. It is thus that the farmer who can have various branches carried on upon his farm is always in the end the most prosperous.

The raising of sheep with us is profitable, albeit, we have such long and tedious winters. It must be vastly more so with you where you have little or no winter forage to provide.—Should leisure serve I may at some future time talk with your readers about sheep and wool.

Kindly yours,
UP NORTH.

March, 1855.

For the Carolina Cultivator.

MR. EDITOR, DEAR SIR.

I avail myself of this opportunity of requesting to make known through the medium of your columns an article grounded upon experience and observation, and which I trust will not be wholly unprofitable to the farming community. It is a certain preventive of that sore destroyer of corn whilst in its young state—the bud worm.

As the time is close at hand when they begin their work of destruction it behooves all to prepare for them, the old adage “a stitch in time saves nine,” will well apply here, for it would be much easier and better to be at a little trouble and pains to prevent this great corn destroyer from doing its work of destruction than it would be to do the replanting caused by the destructive propensity of this insect.

The following directions, well observed, will effectually do the business for them. I, believing them to spring from a kind of animalcule, or from the same that produces weevils in another stage, and that this animalcule is deposited in the grain of corn by nature or otherwise, will begin with the grain itself. Procure first an old pot or any other vessel that will hold water and which you had as soon besmear with tar as not. Put your corn in this vessel; then pour in water enough to swim the corn. Then for every half bushel of corn, put in about two spoonsful of tar; more would not hurt, but as the saying is “enough of a thing is enough, but better too much than not enough;” have in enough any how, which you can tell by stirring it well with the hand until the tar mixes and adheres some to every grain, which should look after it is tarred like it had been painted. The hands are the best thing to stir with—rub-

ing it well with the same until it adheres to every grain; then let it stand in this same water about two days. I have tried different lengths of time and find two days about the right thing. Then take your corn out of this water and having prepared you a keg that will hold water put your corn in, then pour in the keg about a gallon of fresh water; then put in a layer of oat straw about an inch thick, the straw is of a heating nature. Having put straw in, then fill up the keg with dry stable manure just out of the stable. Put in another layer of straw; then turn the keg gradually down, turning it around on its chime all the time. Do this until you wet the manure all you can; then suddenly invert the keg turning it bottom upwards the corn up and manure down, let the water which the manure does not absorb drain out the manure; getting wet will cause it to heat which warms the corn and puts it to swelling immediately. Let it stand thus for about twenty-four hours, then take the corn out of the keg and put it upon a layer of oat straw upon the floor and cover it up with more straw. The corn having got warm in the keg will not cool any more now until it sprouts; which as soon as it begins to do it, it is then in a fit condition for planting. You should, though, occasionally pour water over the pile of corn after it is taken out of the keg, this will keep it moist and cause it to sprout quick. This done, plant as usual, and rest assured the bud worms will never trouble it.

Last spring the bud worms were very troublesome. I planted my upland in the usual way with unsoaked corn, and I verily believe the bud worms took three fourths of it. At length, I prepared corn as above stated, and replanted it, or planted it rather; it soon came up and if a bud worm killed a sprig of it I do not know it.

I planted my bottom with prepared corn altogether and they never hurt that, getting an excellent stand. I did see a few stalks in the bottoms killed by them, but none to hurt; not a dozen I don't think. There were some of my neighbours that prepared their corn as herein stated, and it escaped the attacks of the bud worm. Nor will a crow pull it up. About one of my fields I heard the noise of crows, but having the curiosity to see what they would do, did not trouble them, until, after a day or two going down to see what they had done, I found

a few stalks, and but few, pulled up by way of experiment, and they all gone. Which is another great desideratum. Nor will hogs root it up; they likewise had a trial of it, but made as bad an out as did the crows; another great desideratum. At first sight, the preparation of the corn in the above manner may seem tedious, but taking into consideration the vast amount of damage done, and the consequent falling off of crops in the fall, all caused by this destructive little insect, the labor will be well bestowed. Try it Farmers.

ALIQUIS.

March 15th, 1855.

For the Carolina Cultivator.

SIR:

Through the kindness of a friend I received the first No. of your periodical, and am much pleased with it. I trust that, through your exertions, and those of your subscribers and contributors, it may answer the purposes of its establishment, and fulfill the expectations of the "State Agricultural Society" and its conductors.

In your editorial, headed "correspondents," you invite short essays as to "results of observation and experience on practical subjects connected with the farming interest." As the season for cotton planting is near at hand, and as those engaged in its cultivation may be benefited *greatly* by my experience, if they will be guided by it, I will give it in a few words as possible.

Though, a tobacco planter, yet I raise cotton sufficient to clothe my family, and for this purpose I selected last year, an acre of as poor land as was to be found anywhere, being a washed hillside, on which not even hen-nest grass would grow two inches high, and a part of it entirely bare of any vegetable matter,—and after breaking it up with a cast turning plough, I ran off the rows at the usual time of sowing, with a flake or trowel hoe, 3 feet apart and about four inches deep, into which I sowed guano at the rate of 200 lbs. per acre bedded upon it, opened a furrow, sowed the cotton seed and covered as usual. The after cultivation was similar in every respect to the usual mode. At gathering time, I picked out 1000 lbs. which, at \$2 per hundred—the lowest estimate—had it been sold, would have brought me \$20; and this off of land that would not

have brought 200 lbs. (even if so much) without the guano which cost \$5, leaving \$15 as the nett profit, besides the improvement to the land, which I seeded to wheat, applying 200 lbs. more of guano. Though the winter and spring, thus far, has been *very* unfavorable to the growth of wheat, yet this acre looks remarkably well with the prospect of yielding 20 bushels.

Had this land been in cotton the year before, I should not have broken it up entire before sowing, but at the time of doing so, simply to have run a furrow between the old beds, drilled the guano, turned the old beds upon it and sowed the cotton seed. This course I would now advise all those, who have not broken up their cotton lands, to pursue, as it saves one plowing. By changing the old beds every year and drilling the manure, the entire field becomes rich in four years. It is the course I followed when I cultivated cotton *successfully* 20 years ago, as a market crop. Try it, brother farmers, and you will *assuredly* realize profitable results.

WARREN.

INDICATIONS OF A GOOD COW.—To the remarks furnished by the veins and the escutcheons, says Magne, are to be added the following:—

A homogeneous, very voluminous, but yielding udder, sinking much by milking, covered by a thin skin and fine hair; a good constitution, an ample chest, regular appetite and great inclination to drink; flesh rather lean than fat; a slender, supple skin; soft, short hair; a small head, fine horns, quick eye, gentle look, feminine air, fine neck.

The *Patent Office Report* states, that the first cattle brought to America from Europe, were imported by Columbus in his second voyage, in 1493. He left Spain as Admiral of seventeen ships, bringing a collection of trees, plants and seeds of various kinds, a number of horses, a bull and several cows.

CURE FOR RINGBONE.—I noticed in the Cultivator, for May 15th, an inquiry for the cure for a ringbone in a colt; and answer, take-wines of cider or brandy, add saltpetre as much as will dissolve, and wash the ringbone two or three times a day. One of my neighbors cured one of three or four years' standing, by the application a few times.



Horticultural.

Fruit Culture.—The Fig.

Although the fig is one of the most delicious and wholesome fruits, yet it does not seem to receive much attention from cultivators. It is not even mentioned in the Proceedings of the American Pomological Society, and among the numerous essays on fruit culture in Horticultural Periodicals, it is seldom alluded to, or noticed, unless a stray dish happens to be presented at a Horticultural Exhibition, and is incidentally included among the reports.

This apparent neglect cannot result from difficulty in its cultivation, as no other fruit of equal merit could be pointed out requiring less care in its production. It will thrive on the poorest soils, indeed to have it productive rich soil must be avoided; is easily propagated, requires little skill or care in pruning, and although it is too tender to resist winter colds without protection, this single drawback presents no insurmountable obstacle, as many of our garden plants require similar care, and none will more amply repay trouble than the fig.

There are certain modifying influences under the control of the cultivator which enables him to adapt circumstances to plants, natives of different climates. The fig being a native of the warm latitudes of Asia and Africa, and also belonging to a genus of plants many species of which are almost epiphytal, we must place it under condition and restrictions as nearly as possible resembling its native country. We must plant in a warm, sunny exposure to accelerate growth, in dry ground the better to withstand winter cold, or poor, rather shallow soil, to prevent exuberant growth, and use some

means for protecting it against the severity of winter.

It is very important that the soil in which they are grown should be free from excess of water. Plants withstand cold in proportion to the solidity of their structure. Wet soils produce late growths and shoots that never ripen; being full of sap when winter approaches, the frost expands and destroys their tissue. On well drained soils these conditions are reversed. Early maturity is here induced, watery matter is dissipated and the wood rendered hard, or in other words it is *well ripened*, and consequently, better enabled to endure extremes of temperature.

Pruning, an operation requiring much skill and experience when applied to most fruit trees, is in this case easily performed, the principal attention requisite, consisting in checking luxuriant growth by pinching the points out of the shoots. Strong suckers are freely thrown up from the roots, these generally produce the best fruit, provided they are checked in growth by pinching when they reach a length of twenty-four or thirty inches. The plant can be completely covered with fruit by simply bruising the points of the young shoots, and stopping their longitudinal growth. It may also be occasionally necessary to thin out branches when overcrowded, this can also be best done in summer when the plant is in full leaf.

Figs are easily propagated. Cuttings made in spring of the former year's growth will readily throw out roots, if planted in a shaded spot, and make strong plants by the end of the season. Cuttings of roots also form plants without difficulty.

The simplest and most efficient method of protection from frost, is to peg the branches as near to the ground as possible without breakage, (even should they split a little at the root it will do more good than harm,) and cover them over with leaves, throwing on some brush to prevent them from blowing about. I have tried various methods but have not found any to answer so well as the above.

To secure a crop of figs therefore, it is only necessary to plant in an exposure free to sun, on well drained soil. In summer prune the young shoots, and afford sufficient protection during winter, and both the quantity and quality of the production will compare favorably with any other fruit.—*Progressive Farmer.*

Analysis of Garden Vegetables.

We recently alluded to the interesting contribution of Dr. Salisbury, to the transactions of the New York State Agricultural Society, of a paper containing analysis of various garden vegetables. As we have no room to give these analysis, we have briefly condensed some of the conclusions arrived at by Dr. Salisbury, which afford valuable suggestions for experiments in the culture of these products.

The roots of the *Vegetable Oyster*, contain a large per centage of sugar, dextrine, and albumen, which accounts for their richness.—They contain about five per cent. of water more than the potato, that is about 81 per cent. for the root, and 85 for the top. Dr. Salisbury recommends the following component parts for a special manure for this vegetable, viz : 33 parts of ashes, 10 parts common salt, 5 parts plaster.

The root of the *Carrot* is rich in sugar, dextrine, albumen, and starch. One ton of the roots contains 141 pounds of sugar, 30 pounds of dextrine, 4 1-2 pounds of casein, 17 pounds of albumen, 9 pounds of starch, 1 1-2 pounds of gluten, and 1-5 pound of fat. One hundred pounds of ashes, 50 pounds of common salt, and 10 pounds of plaster, will supply the inorganic matter taken by a crop from the soil ; or, in other words, will form the constituent of a special manure for a soil which happens to become alike destitute of the materials of these substances—if there should happen to be such a soil, and if this fact could be determined.

The root of the *Beet* is about *nine-tenths water*. One ton of the fresh roots of the *turnip* beet contains 62 pounds of sugar, 20 pounds of dextrine, and 12 pounds of albumen, casein, and gluten taken together. The long *blood* beet contains about twice as much sugar, and about twice as much albumen, casein and gluten. The white sugar beet is less rich than the latter, but richer than the former in materials. Three hundred pounds of ashes and 200 pounds of common salt, are recommended as a special manure for a crop of 20 tons.

Muskmelon and *Watermelon*.—Dr. Salisbury remarks on these, "The muskmelon contains a very large per centage of phosphoric acid and soda, and considerable potash ; the watermelon a large per centage of soda and potash, and is quite rich in phosphoric acid. The occurrence of these bodies in such quantity in these plants,

explains to us why dead animal matter, as flesh, bones, &c., common salt, and ashes, have such marked influence in promoting their growth and productiveness.

The *Cucumber* is similar in composition, but is most remarkable for the very large proportion of water it contains, being about 96 1-2 per cent. In other words, a ton of cucumbers contains only 70 pounds of solid matter, the remaining 1,930 pounds being water; !—*Country Gentleman*.

Strawberries.

REMARKS ON DIFFERENT VARIETIES.

The strawberry crop is becoming an important one, both to the cultivator and consumer. It is very delicious fruit, admirably combining rich acid and saccharine qualities, which render it very welcome in hot weather ; and its being the earliest fruit in the season gives it additional importance.

Every family in the country should have a good supply of strawberries, they are so delicious, and so much more palatable and wholesome than meat, butter, rich cake, &c. We would rather have for supper a piece of good bread, with fine-flavored strawberries, tempered with sugar, than the most costly and richest dishes that the wide world can afford.

So valuable is this fruit, that every farmer, and every one who has room in his garden, should raise it for his own family, at least, unless he is fortunately in a region where the delicious wild strawberry abounds. And we trust that so much attention is now given to the cultivation of this fruit for the market, that every family can have a supply at moderate prices.

The farmer should consider that a bed of strawberries, two rods long and one wide, yielding a fair crop, will give him two quarts a day, for twelve days, and twice that quantity if the yield be very large. A gardener informed us that from less than one square rod he had 20 quarts. But little land, manure and time, is required to afford this most delicious and healthful luxury—to children a most delightful treat. Who will neglect to cover their bright faces with smiles of joy as they partake of the delicious feast, or lose the opportunity of illustrating the beneficence of our heavenly Parent in providing such fine delicacies to cheer their grateful hearts?

With these preliminary remarks on the importance of the strawberry, and the advantages of extending its culture, we proceed to give an account of a number of the most prominent varieties in general cultivation, or which seem to have claims to this distinction. We have often said that the cheapest of all improvements in the cultivation of vegetables, or rearing of animals, was the selection of the best varieties; for, although this may cost a little more at first, a beginning may be made, and soon, enough will be produced for one's own supply, and perhaps a surplus that will bring an extra price, and make an ample return for the original stock.

We cultivate strawberries for our own use, also for the purposes of experiment, that we may test all the varieties that have claims to excellence, in order to learn their hardiness, vigor, the qualities of fruit, time of ripening, and various other habits; and to supply a few plants with other nursery productions. In addition, we have examined for years, the principal strawberry plantations in this region, also our market, and we confer with the principal cultivators and dealers in this fruit. If these advantages can enable us to give to the cultivators of this fruit any useful information, we do it with pleasure.

Whether we cultivate fruit for our own use, or for the market, the time that each variety ripens is worthy of consideration, in order that we may have fruit in succession, or have it for the market, when it will bring the highest price. Our strawberries are on a fine loam, tolerably dry; the immediate location is rather warm, having a southern aspect, but not forward, as it is not far from the water.

The following are the times of ripening of several varieties, which, in regard to comparing one with another, will not differ much from an average of seasons:—

Early Virginia, - - - - -	June 22
Large Early Scarlet, - - - - -	" 22
Boston Pine, - - - - -	" 26
Wiley, - - - - -	" 26
Jenney's Seedling, - - - - -	" 27
Black Prince, - - - - -	" 27
Hovey's Seedling, - - - - -	" 23
Fay's Seedling, - - - - -	" 23
Wood, or Alpine, - - - - -	July 1
Newland's Mammoth, - - - - -	" 1
Millord Native, - - - - -	" 1

The time named is when the fruit began to

ripen, and generally, it continued about one week. Jenney's continued in use nine or ten days. This table agrees very nearly with previous experiments, and with the experiments of many other cultivators, in the comparative time of ripening, which is the main subject in view, as it shows the inexperienced how to select so as to have a succession of fruit.

Early Virginia.—This is the best early strawberry generally known in this section. It is one of the principal kinds for main crops, and some cultivate it almost exclusively. The plants are very strong, vigorous and hardy, enduring the cold of winter, and succeeding well on dry soils, as well as on those rather strong and heavy. The fruit is medial size, very handsome, and of excellent quality, which it retains well after picking. It sells well in the market the next day after it is picked. It is very productive. We have accounts of its yielding some of the largest crops ever produced from any variety. It is nearly perfect in its blossoms, and is a good variety to fertilize pistillate kinds.

Large Early Scarlet, is the same as the above.

Boston Pine.—We say in our Fruit-Book, "cultivators give various accounts of it," and we still say the same. Its merits as a market fruit are not well tested. Some extol, others condemn it. This fruit seems to be peculiarly adapted to strong soils, and under high culture planted in hills, or the plants well thinned, it yields large crops; but if the plants are thick, it sets more fruit than it can perfect. The plants are strong, vigorous, productive, and hardy, enduring our winters well. The fruit is quite large, beautiful, and of a sweet, pleasant flavor as taken from the vines. Some prefer it for its mildness; others give a preference to sub-acid fruits, which in the hot season are admirably adapted for the table, with a little sugar. This fruit becomes insipid soon after it is picked, and does not appear well in market the day after gathering. Some persons think that this fruit will take the place of the Early Virginia: but we think that it is a great mistake, for its quality is not so good for a market fruit, and it ripens so much later, that half of its crop, or more, comes in with Hovey's Seedling, and other late varieties. On the contrary, the Early Virginia comes so early, that it is nearly or quite gone, when the late kinds come in.

Some say the Boston Pine is *about* as early as the Early Virginia. Now, let us see what a wide difference this little word makes, though it seems to mean almost nothing. The first boxes of Early Virginia brought into this market this season, sold for more than one dollar per box; and when several cultivators brought them in, they sold at fifty cents per box. But when the Boston Pine was ripe, good strawberries sold at twenty cents a box. The Boston Pine is nearly perfect in its flowers.

Willey.—This is a famous strawberry in Ohio, producing large crops of excellent fruit. The plants are remarkably vigorous, hardy, and productive. The fruit is tolerably large and of excellent quality. We have had but little experience in this variety, having had fruit from it this season only, and have not seen it in cultivation by others. It is very promising, and worthy of trial. Mr. F. R. Elliott, Cleveland, O., a well-known pomologist, raised of this variety 1345 quarts on one-fourth of an acre of land. The Willey which we have is pistillate, staminate, and some blossoms are nearly perfect. We have selected pistillate plants, and set them by themselves, and some of them produced staminate plants the next season.—This is contrary to opinions of some horticulturists.

Jenney's Seedling.—This is a new variety, not yet cultivated to much extent, but it is very promising indeed. The plants are strong, vigorous, productive and hardy, enduring our winters without injury. The fruit is large, very handsome, and of a very high quality. It is sub-acid, and to this some persons object; but as the strawberry is usually used with sugar, and in hot weather, when a little acid mingled with sweet, is very acceptable, we think that this will be a very popular fruit. There is no strawberry that we should prefer to this, to come immediately after the Early Virginia, for our own use. Time must determine its merits for the market. Mr. Jenney raised, on one-fourth of an acre, at the rate of 4000 quartz to the acre. This plant is mostly pistillate, but we believe that it yields good crops without a fertilizer.

Black Prince.—Some praise this highly, and others condemn it with severity. It has a peculiar flavor, that is pleasant to some, but to others it is offensive. Some amateurs will cultivate it, but we do not think it will be valuable for the market.

Hovey's Seedling.—This is one of the most valuable of strawberries. It has not the vigor and hardiness of the Early Virginia, Willey and Jenney's Seedling, but it usually endures our cold winters well. When it produces a very greater crop, the plants are sometimes rather thin the next season, either from the effects of the winter, or from exhaustion. The size of the fruit is extremely large, the color is beautiful, and the flavor is mild, rich, and excellent. While some persons admire its mildness, other prefers more acid, like Jenney's Seedling, Early Virginia, Willey, &c. This variety is remarkably productive, and owing to its large size, and the readiness with which the fruit parts from the hull, it is picked with less expense than any other variety. One cultivator in this vicinity had several hands that picked seventy boxes each per day. One acre of land, mostly of this variety, produced 4,000 boxes, and the yield was largest from this kind.

Fay's Seedling.—We prefer Hovey's or Jenney's to this, and they ripen about the same time.

Wood, or Alpine.—This is an old variety, which held an important place as a late strawberry, before the introduction of Hovey's, and other late varieties.

Newland's Mammoth.—All the mammoth about this, is the *mammoth humbug* which Geo. Newland, of Palmyra, N. Y., played off in selling the old Wood strawberry for a new and superior variety.

Milford Native.—A very good fruit, and very late, but neither vigorous nor productive.

Richardson's Seedlings we have not thoroughly tested. His Late promises to be valuable, as it ripens after most others are gone.—*New. Eng. Far.*

TO MEASURE HAY IN THE STACK.—More than twenty years since, I copied the following method of measuring hay, from some publication, and having verified its general accuracy, I have both bought and sold by it, and believe it may be useful to many farmers where the means of weighing are not at hand. "Multiply the length, breadth, and height into each other, and if the hay is somewhat settled, ten solid yards will make a ton. Clover will take from ten to twelve yards per ton."—*Franklin Intelligencer.*

Fish-Ponds.

THEIR CONDUCTION AND USEFULNESS.

The utter indifference displayed by a vast majority of our farmers and planters to those means which tend to embellish and render attractive their homes, and add to the innocent enjoyment of their families, is inconceivable. How few are there supplied with an *abundance* of the finest fruit! And yet, what is the cost? A few hours in budding (as simple a process as any in Agriculture,) and a little labor. They are all willing enough to rob a "bee tree," and that at the cost of five times the labor it would require to make a few boxes to live and domesticate the bees in. They have all heard of, and know, or ought to know, the simple process of caponizing fowls; yet they are contented to sit down to a scrawny, stringy, skinny, chicken, instead of a fat, tender, luscious capon. He who dwells far inland may serve upon his table as fine fish as he who lives upon tide-water; but it would require some enterprise and a little trouble—so he sticks to his hog and hominy to-day, hominy and hog to-morrow, from year's end to year's end.

Of fish and fish-ponds it is our intention here to treat.

In Europe the fact is notorious that both the dove-cote and poultry-yard are far behind the fish-pond, both in the quality and quantity of their products, though far more expensive.

The first mention of fish-ponds in history is among the Romans; their invention is attributed to Murena. Those of Cato the ancient were immense, and the fish were regularly fed and fattened for consumption. We have an account of the ponds of Hortensius, of Lucullus and Cæsar, but they were on a scale that required to form them the wealth of the most powerful men in a nation that had seized the riches of the world. Lucullus severed a mountain that he might conduct an arm of the sea to his reservoirs; hence (as Pliny tells us) the great Pompey called him the Roman Nereus.

A species of fish called the Lamprey was, it appears, held in the highest esteem for its delicacy. History has transmitted to us the name of Vedino Pollio, who had the hideous fantasy to feed his large lampreys on living slaves.

Fish were tamed and came at the call of their feeders. The orator Hortensius shed tears at

the death of one of his lampreys, and his heir-ess Antonia decked a favorite fish of hers in gold rings, and it became an object of great curiosity in the neighborhood.

They had, too, their ponds for oysters, that were brought from immense distances. But enough of this that is merely curious, and let us turn to the practical.

The pond should, if possible, be near a spring, and thence derive its supply of water; those upon larger streams are liable to be swept away by freshets. The lot in which the pond is situated should be kept permanently in grass; otherwise the water at every rain is liable to become muddy, and the pond to fill up from the washing of the soil. To construct the dam commence by sinking a ditch (until you reach the solid subsoil) four feet wide, and in the center of the place to be occupied by the dam; the earth thrown out to be laid on each side. This ditch is to be gradually filled with clay, a little at a time, and that to be kept moist and well pounded. This wall (as it were) of clay to be carried quite to the top of the dam, and will form what is called the key. The dam should always be three times as wide at the base as it is high, and its width at top should equal its height. The more gentle the slope from the top of the dam each way, the greater its strength. Trees and shrubs should never be planted upon it, as the decay of their roots is liable to let the water through. The stream running from the pond might in many locations be turned to good account, either as water-power for the minor domestic purposes, such as forcing water, churning, &c., or for irrigation.

In Europe their fish-ponds are usually stocked with the carp, tench and pike, but we have a fish that is worth them all, and that is the James River or North Carolina *chub*. We find it hard to say how we like him best—fighting gamely for his life (as he always does) at the end of a line, or smoking on the board with "sauce and fixins *a la Guy*." Your old Baltimore friend, unexcelled if not unequalled in his profession. How could he be otherwise, growing up under the eye of your other old friend, KING DAVID?

Now that the land is webbed over with railroads, there can be but little difficulty, in getting this noble fish anywhere. Doctor Thornton, of Rappahannock, Virginia, ranks it next

to the salmon. He has succeeded perfectly in transporting them alive over eighty miles of bad road, at the speed of ordinary road-wagons. There is no fish that will thrive better; even in small ponds they sometimes attain 15 pounds in weight; and though last, not least, young Wade Hampton, (than whom there is no better authority) says it's a crack sporting fish!

F. G. S.

Value of Corn Cobs.

Shell all your corn before you sell it, and *crush the cobs for cattle feed*; when crushed, cooked, and mixed with cut hay or straw, 4 bushels are worth as much as 2 bushels of grain, and make most excellent messes for milch cows, or working oxen.—*Exchange Paper.*

In the Eastern States, where corn and all kinds of cattle food command high prices, there can be little doubt that it pays to grind the corn with the cob without shelling. In the large Rochester mills, the charge for grinding a bushel of shelled corn is five cents; for grinding two bushels of corn in the ear, (equal to a bushel of shelled corn) eight cents. Estimating that the two bushels of ears weigh 80 lbs., and the bushel of shelled corn obtained from them to weigh 60 lbs., we pay three cents for grinding 20 lbs. of cobs, or \$3 per ton. It must be remembered, too, that we save the expense, and the loss of corn, of shelling. Corn-cobs are not very nutritious—equal to the best wheat straw—but in this neighborhood, at least, when ground, they are well worth \$3 per ton. There is, however, no such advantage in grinding cobs, as the writer we have quoted would lead us to believe. He says, four bushels of cobs, at most, would not weigh more than 80 lbs., while the two bushels of corn would weigh 120 lbs., and no one can for a moment, suppose a pound of cobs, cooked or ground, or messed up how you will, can possibly afford as much nutriment as a pound of corn.

The practice of grinding corn *in the ear*, where cattle food is high and scarce, is a profitable one, and there is no necessity for making such extravagant statements in regard to it.—If those who write for the agricultural press would keep within bonds, there would be far less prejudice against book-farming.—*Country Gentleman.*

Shrinking of Corn,

EDS. CULTIVATOR:—Knowing that a great difference of opinion exists among farmers, as to the loss of corn by shrinkage or drying, from the time it is cribbed in the fall, till Spring—say the latter part of March, I determined to satisfy myself on this point—at least so far as a single experiment could determine.

On the 23d of November last, the day on which we finished the husking, I measured two bushels of ears in a standard bushel, as accurately as I could. I then weighed each bushel, and found the weights forty-three and a half lbs. respectively. The number of ears, 58 in one, and 50 in the other. I had one parcel shelled, and got thirty-three and a half lbs. by weight, and half a bushel and half a peck by measure, and ten lbs. of cobs. The corn was spread in a dry airy place, where it remained till a few days since, when it had lost just half a peck, or fifty per cent by measure, and a fraction over three lbs., or ten per cent in weight.

This shows a difference of ten per cent., between the loss by weight. How is this difference to be accounted for? It was owing to the minute division of the water in the corn, that while we find a loss in weight that should occupy a space less than three pints, there is an actual loss of eight pints in bulk. The cobs of this parcel were accidentally destroyed; so that I was prevented from ascertaining the loss of the cob.

The other bushel of ears was kept in a dry, airy place, and shelled a few days ago, and gave a half a bushel of corn, weighing thirty and a quarter lbs.

These are the facts, as gathered from my small experiment. The corn was a variety of the white, between the Gourd seed and Flint—a mixed variety having from ten to twenty-six rows. The corn was in good condition for housing at the time we finished husking.—*Al. Cult.*

A North Carolina Farmer.

A writer in the *Wilmington Herald* gives the following description of the estate of D. L. Russell, Esq., of Brunswick county, North Carolina:

"Several years ago, Mr. R. made a large and judicious purchase of land, the most of which

was covered with a fine growth of pines—but some seven years since, this tree, throughout this part of the country, was visited with a disease which destroyed immense forests, much to the loss of the proprietors, the immediate cause of which has never been discovered. Mr. R. was probably the largest looser in the State—it being estimated that not less than seven hundred thousand of his pines died in the course of three years; the greatest destruction being on the clay lands.

Previous to this his attention had been mainly turned to the turpentine business; but at present he is extensively engaged in cultivating the soil, mainly on the land where the trees were killed. He has about a thousand acres under the plow, of which one-half is cultivated in corn. Last year's crop amounting to seven thousand bushels; and so extensive are his operations, that all of this will be consumed on the plantation during the year. Last fall he slaughtered one hundred and fifty hogs, and as many cattle as were needed for domestic use. Among his stock I saw a Spanish jack, an Alderney bull, a Suffolk cow, and a Saxony ram, which proves that he spares no expense in procuring the best breeds of animals known.

It may be useful to know how he can raise such crops and sustain three hundred head of animals, on naturally a poor soil. The answer is, by manure. I understand, from his overseer, that over five thousand loads of this article had been carried to the fields this spring.—During the winter, the hands are employed in collecting immense quantities of leaves, grass and mud, which are carted to the stables, and, after having been used for litter, are placed in the compost heap, and soon prepared for the field.

Considerable use is also made of marl, with which the county abounds, while guano is relied on, to some extent, for corn alone. There are connected with the place some one hundred and fifty negroes, of all sizes, a large part of which are mostly employed, during the summer and fall, in the turpentine department, of which the agricultural part is only for the supply of food and clothing; the net sales from stills being about twenty-five thousand dollars per year.

I have understood that Mr. R's. entire domain, exceeds 25,000 acres, and is much the largest, except the Green Swamp Co., of any proprietor in the county.

Morgan Horses.

MR. EDITOR:—The improvement of our breed of horses is an object which deserves attention. Of the whole number of horses reared in the country, the proportion of good ones is very small; hence the remark is frequently made that the rearing of horses is not only a subject of interest to the curious, but it is also one of great importance; and a course which has produced improvement may safely be relied upon for the continuance of similar results.

The origin of the valuable stock of horses called Morgan, has been the subject of some controversy in this State. Many have supposed that they were of Canadian descent. Some persons, having horses of Canadian descent, have advertised them as Morgan horses, which is very derogatory to the Morgan blood. The stock of Morgan horses is so universally known and admired throughout New England, that it is hardly necessary to repeat their merits. For a seller of horses it is only necessary to establish the fact that his horses are of the Morgan blood, and he meets with ready sale and good prices, and the purchasers are then satisfied. They excel in great endurance, carrying weight a long distance—and as roadsters they excel all other horses in this or any other country—are full of noble and generous spirit, with such docility of temper that the most timid can drive them; but if put to their mettle, they are a full hand for the best driver. It has been asserted, and cannot, with propriety, be denied, that there has never been a stock of horses in New England which has proved so generally useful, as the Morgan stock of horses. The original Morgan horse was raised by Justin Morgan, of Springfield, Mass., in 1793, and taken to Randolph, Vt., in the fall of 1795—sired by the True Briton or Beautiful Bay, raised by Gen. James DeLancy, of Long Island, N. Y., and sired by his imported English horse, Traveller, (known as Moreton's Traveller) who traced directly back to the Godolphin Arabian. Dam of the original Morgan was of the Wild Air breed, sired by the Diamond, who was raised in East Hartford, Conn. Diamond was sired by the Wild Air, known as the Church Horse.—The Church Horse was sired by the Wild Air, imported from England, by Gen. DeLancy, and afterwards taken back to England. He was grandson of the Godolphin Arabian. The dam

of the Church Horse was an imported Wild Air mare, owned by Captain W. Burt, Springfield, Mass.

The above is the genuine pedigree of the Morgan horse, which is in no way of French Canadian descent, as many have erroneously supposed. The description of the Morgan horse is not in the least exaggerated.—*Maine Farmer.*

Why don't he do it?

We find the following home queries going the rounds among our exchanges, without name or credit, although deserving of a better fate, and what is more, of the careful reading of every farmer:—*Penn. Farm. Jour.*

When the farmer knows that a gate is better, and as a time-and-labor-saving fixture, cheaper than a set of bars and posts, and without calling on a carpenter, he can himself make one, *Why don't he do it?*

When he has no other fastenings to his gates and barn doors than a stone rolled against them, and in a single evening, after supper, is able to make a better one, *Why don't he do it?*

Or when he sees the boards dropping from his barns and out-buildings, and like heaps of rubbish lying in piles about the premises, and need only nailing on again, *Why don't he do it?*

Or if he is afraid of the expense of nails and is always crying up the maxim of Dr. Franklin, to "save the pence, and the pounds will take care of themselves," and he knows that the same Dr. Franklin also said, that "many men are penny wise and pound foolish," and he is not careful to think of the precept contained in the latter, *Why don't he do it?*

If it is a saving of nearly half the manure of a farmer's stock, by keeping them shut up in yards, instead of running at large through most of the winter, *Why don't he do it?*

If he knows that many of his fields would be greatly improved by ditching, and by the removal of large stumps and stones, *Why don't he do it?*

And if he can add fifty per cent. to the product of his clover fields, and even his pasture by the use of gypsum, *Why don't he do it?*

If a farmer of fifty acres has (as he should have) use for a good corn-sheller, and one of

the many improved fanning mills, and has not already obtained both, *Why don't he do it?*

And if it is cheaper, actually cheaper, to burn dry wood than green, and to use a stove instead of an open fireplace, *Why don't he do it?*

Management of Animals.

In Breaking or Managing a horse, however intractable or stubborn his temper may be, preserve your own. Almost every fault of the brute arises from ignorance. Be patient with him, teach and coax him, and success, in time, is certain. There are tricks, however, which are the results of confirmed habit or viciousness, and these sometimes require a different treatment. A horse accustomed to starting and running away, may be effectually cured by putting him to the top of his speed on such occasions, and running him till pretty thoroughly exhausted.

A horse that had a trick of pulling at his bridle and breaking it, was at last reduced to better habits, by tying him tightly to a stake driven on the bank of a deep stream. With his tail pointed to the water, he commenced pulling at the halter, which suddenly parted; over the bank he tumbled, and after a somersets or two, and floundering a while in the water, he was satisfied to remain at his post, in future, and break no more bridles.

A ram has been cured of butting at everybody and everything, by placing an unresisting effigy in a similar position; when the sudden assault on a wintry day, resulted in tumbling his ramship into a cold bath, which his improved manners took care to avoid in future.

A sheep-killing dog has been made too much ashamed ever again to look a sheep in the face, by tying his hind legs to a stout ram, on the brow of a hill, while the flock were quietly feeding at the bottom. On being set free, and somewhat startled at setting out, in his haste to rejoin his friends, he tumbled and thumped Master Tray so sadly over the stones and gullies, that he was quite satisfied to confine himself to cooked mutton thereafter.

Man's reason was given him to control "the beasts of the field and the birds of the air," by other means than brute force. If he will bring this into play, he will have no difficulty in meeting and overcoming every emergency of perverse instinct, or bad habit in the dumb things, by his superior cunning.—*Am. Agriculturist.*

Statistics of Louisiana.

From a report of the Auditor of Public Accounts of Louisiana to the Legislature, for the year 1854, we learn that the population of the State numbers 578,189 souls, of whom there are—

Free white persons,	301,102
Free colored "	23,272
Slaves,	253,815

The value of the property, real and personal, in the State is \$293,996,000. The total amount of taxes assessed annually is \$1,028,907. The cultivated land in the State is thus appropriated—

	<i>Acres.</i>
To cane,	338,412
" cotton,	574,575
" corn,	501,315
" rice,	3,816

Total cultivated,	1,418,118
Uncultivated land,	5,420,254

The productions in the year 1854 were, of sugar, 272,719 hogsheads; molasses, 431,918 barrels; cotton, 402,821 bales; corn, 11,690,093 bushels; rice, 34,082 barrels. We estimate the value of these products, omitting corn (which is not an article of export,) at about thirty-three and a half million of dollars.

Poultry Manure,

Poultry-dung, Sprengel informs us, is one of the most powerful manures, and is therefore worthy of greater consideration than is generally bestowed upon its collection, especially as it soon decomposes and loses much ammonia, and would lose still more if it did not dry so quickly, and thus prevent a further decomposition of the urea. The manure of Pigeons and domestic fowls is the most valuable, because they feed mainly on grain, insects, and worms. To secure poultry-dung in its most valuable state, the floor of the house should be strewn with soil abundant in humus, the humic acid of the earth combining with the ammonia of the droppings, thus saving it from loss during the process of putrefaction. Strewing the floor with sand or saw dust is of no use, unless in point of cleanliness. The droppings of geese are not so valuable as of pigeons or chickens. When they come in contact with the grass, they quickly destroy it, which fact is explained partly by the uric acid it contains, and

partly by the ammonia which is so soon generated and developed on decomposition. These caustic substances become valuable as soon as rain falls and dilutes them. The same writer remarks that poultry manure should always be applied as a top dressing, and harrowed in lightly. If ploughed in, the main soluble substances would be carried too deep into the soil.—*Progressive Farmer.*

TRANSPLANTING PEACH TREES.—The Cincinnati Commercial says Mr. Ward, of Loveland, Ohio, recently brought from the Jersey nurseries 18,000 peach trees. An immense number of peach trees are being planted in the region round about the city.

A GOOD PRICE FOR A HORSE.—The colt Morgan, from the original Black Hawk, owned by David Hill, Bridgeport, Vermont, five years old, was sold last week in New York, by James M. Hill to Mr. B. F. Fields, of California, for \$4,000.

CABBAGE WORMS.—The Charleston (S. C.) Mercury tell us that John Farrer, one of the most practical farmers in the State, says these destructive insects may be destroyed in the following easy and simple way:—"Break off a large leaf from the bottom of the cabbage, and place it on top, upper side down. Do this in the evening, and in the morning you will find all or nearly all the worms on each cabbage have taken up their quarters on this leaf. Take off the leaf and kill them, or feed them to the chickens, and place the leaf back if there be any more to catch."

THE GREATEST GRAIN PORT IN THE WORLD.—The Chicago Daily Press, December 14th, says that a thorough investigation establishes the supremacy of Chicago as a grain port over all other ports of the world. According to the calculation of the Daily Press, the grain exports of Chicago exceed those of New York by 4,296,383 bushels, those of St. Louis by more than two hundred and fifty per cent, those of Milwaukee nearly four hundred per cent. Turning to the great granaries of Europe, Chicago nearly doubles St. Petersburg, the largest, and exceeds Calais Ibraila, combined, 5,406,727 bushels.


 Never keep your cattle short; few farmers can afford it. If you starve them they will starve you.

Table of Contents.

	Page.
Analysis of Garden Vegetables,	55
A North Carolina Farmer,	59
A Letter from a New York Farmer, . . .	51
Acknowledgment,	50
Agricultural Improvement,	48
American Hops,	43
A Good Price for a Horse,	62
Cabbage Worms,	62
Cotton Planting,	53
Cure for Ringbone,	53
Corn and Potatoes Together,	39
Cotswold Sheep, (Cut,)	41
Compost Heaps,	44
Cultivation of Willows,	45
Different kinds of Food for Soiling, . .	33
Fish Ponds,	58
First Cattle brought to America, . . .	53
Guano for Corn,	34
Invitation to Farmers,	49
Indications of a Good Cow,	53
Interesting from the Chincha Islands, . .	38
Look to your Gardens,	49
Morgan Horses,	60
Making and Preserving Butter,	37
Management of Animals,	61
Necessity of Manuring,	43
Number Two,	50
Orange Agricultural Society,	46
Probable Effects of the War on Agriculture,	35
Profit of keeping Sheep,	42
Popular Error about the Rise and Fall of Sap in	
Trees,	36
Planting Corn,	52
Poultry Manure,	62
Root Crops,	40
Ripe Tomato Pickles,	47
Rural Architecture,	49
Setting a Lot in Grass for Pasture and Hay, . .	35
South Carolina Wool,	40
Suffolk Pig, (Cut,)	44
Secretaries of Agricultural Societies, . . .	49
Seeding Corn,	51
Strawberries—Remarks on Different Varieties .	55
Shrinking of Corn,	59
Statistics of Louisiana,	62
The Fig,	54
The most Profitable Breed of Sheep, . . .	41
To Cure Garget in Cows,	43
To Measure Hay in the Stack,	57
Transplanting Trees,	62
"Up North,"	49
United States Agricultural Society,	59
Value of Corn Cobs,	59
What kind of Cows should Farmers keep? . . .	37
Warren, Franklin and Granville Ag. Society, .	47
Worms in the Heads of Sheep,	42
Why don't he do it?	61

A MASTER PIECE OUT-DONE.—We have lately supposed Ayer's Cherry Pectoral was the Ultima Thule in its line, and that nothing had been or would be invented which could surpass it in its fine points of excellence as a medicine. But we are confidently assured by those competent to judge on the subject, that Dr. Ayer's new Pills excel in high medical artistry even that widely celebrated embodiment of his skill. He has succeeded in making them not only pleasant to take but powerful to cure the large class of complaints which require a purgative remedy.—*Lancaster Argus*.

NORTH CAROLINA MUTUAL LIFE INSURANCE Company, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the MUTUAL PRINCIPLE, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$30, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 90 days after satisfactory proof is presented.

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H. W. HUSTED,	WM. H. JONES,
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CHARLES B. ROOT,	SEATON GALES.

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W. W. HOLDEN, } <i>mittee.</i>	
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J. HERSMAN, *General Agent*.

Communications should be addressed, (post paid) to
JAMES F. JORDAN, *Secretary*.

NORTH CAROLINA

MUTUAL INSURANCE COMPANY.

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

D I R E C T O R S :

J. B. G. Roulhac, Raleigh.
Henry D. Turner, do.
J. R. Williams, do.
T. H. Selby, do.
C. W. D. Hutchings, do.
James F. Jordan, do.
James M. Towles, do.
James E. Hoyt, Washington.
Alex. Mitchell, Newbern.
Joshua G. Wright, Wilmington.
John M. Jones, Edenton.
W. W. Griffin, Elizabeth City.
F. F. Fagan, Plymouth.
W. N. H. Smith, Murfreesboro'.
H. B. Williams, Charlotte.
Geo. A. Smith, Milton.
O. F. Long, Hillsboro'.
Joseph White, Anson County.
Josh. Boner, Salem.
A. T. Summy, Asheville.

O F F I C E R S OF THE COMPANY.

J. B. G. Roulhac, <i>President</i> .
H. D. Turner, <i>Vice President</i> .
John C. Partridge, <i>Secretary</i> .
John H. Bryan, <i>Attorney</i> .
J. Hersman, <i>General Agent</i> .
John R. Williams, } <i>Executive Committee.</i>
T. H. Selby, }
C. W. D. Hutchings, }

This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam-

Mills and Turpentine Distilleries,) upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid.

J. C. PARTRIDGE, Sec'y.

Raleigh, Jan. 9th, 1855.

ENGLISH CATTLE, SHEEP AND SWINE.

ALSO Mules and Merino Sheep from Spain. Selected and imported on commission to any Atlantic sea port in America, by Thos. Betts & Co., at Liverpool and Herts, England.

Circulars containing the prices of all kinds of English Stock, and the expenses from England to America, including insurance can be received by applying personally or by post to G. M. Miller 81 Maiden Lane, New York City. Agent for

THOS. BETTS & CO.

FARMER'S HALL, RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855.

no. 1—tf.

AYER'S PILLS,

A new and singularly successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fever, Gout, Hu mors, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the bowels all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

Dr. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

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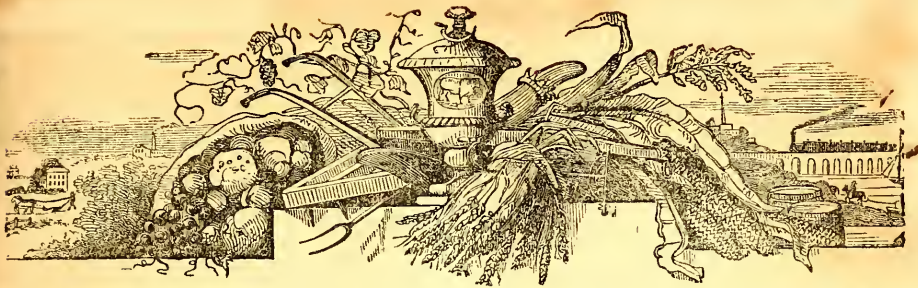
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THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

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NO. 3.

WILLIAM D. COOKE, PUBLISHER.

Cultivation of Oats.

Their use and Importance in the United States.—Oats have been an object of cultivation from the earliest period of the settlement of this country. They have never constituted an article of human food here, except with very few immigrants who were accustomed to them in their native land. It has been questioned whether the heavier kinds, as the Imperial, the Potato, and the Poland oats, might not, with skillful preparation, be introduced into our hospitals and among the laboring poor, with manifest advantage. They are a light yet nutritive diet, and in all cases, we believe, wholesome; as is shown by the stalwart forms and brawny limbs of such of the better class of Scotch and Irish peasantry as are accustomed to eating oat meal. But our summers are too warm and dry to produce the heavier kinds in the perfection they are grown abroad, in the cooler and moister climate of Great Britain; and the more suitable adaptation of our soil and climate to the growth of Indian corn, which, though less nutritive, is equally wholesome and palatable, will probably forever preclude the introduction of oats to any extent among us, as human food.

Their true value is as food for working animals. *No other grain will secure, (with the exception probably of wheat and barley,) pound for pound, more working capacity in animals, than sound heavy oats;* and it is as a food for

horses, mules and working oxen that they are generally used. Like beans, they constitute an excellent food for sheep, the large proportion of nitrogen in both constituting an important element of wool. They are sometimes fed to poultry, pigs, and fattening cattle, which is very well as affording a change of diet; but they should not be relied on for the rapid production of fat, as they are deficient in the elements necessary for the speedy, yet economical ripening of animals for the shambles.

Limit of their growth within the United States.—Oats are essentially a north-loving grain. They are nowhere raised in greater perfection than in Scotland, latitude about 56 deg. They mature finely to the extreme northern borders of the Union, but they attain their perfection within our limits probably between 43 and 45 deg. South of 36 deg. they seldom yield a full, heavy berry; and perhaps they are not a profitable crop south of 38 deg. The Egyptian oat has, however, been found to yield well, in certain seasons, as low down as southern Mississippi and Georgia, or below 30 deg. North latitude.

Quantity produced in the United States.—The aggregate of the oat crop was returned in the Census Report for 1840, as over 123,000,000, bushels; and for 1850, as more than 145,000,000.

Soil and Situation.—Any soil and situation—if not too far south—that will give a good yield of wheat, will produce a fine crop of oats;

and much that is too wet or cold for the former, will afford a satisfactory return of the latter. No soil is better suited to the oat than what is termed a loam; and if this approximates to a stiff clay, it does not impair its adaptedness for oats, provided it be well drained, and properly broken up. Sandy or light land is not adapted to them. Oats are a heavy drain upon a soil, and no large crop can be relied upon except on a strong soil.

Manure from the barn-yard ought not to be applied directly to this crop, unless previously thoroughly rotted, nor then in over doses. The mineral manures, such as lime, plaster, salt, ashes, and also bone dust, guano, or superphosphate, may be applied, in moderate quantities, with benefit. If there be too much stimulus to the growth of oats, they will not take up a sufficient proportion of silex to give a proper support to the stalks, as the silicate of potash mainly constitutes the skeleton of the plant; and without a full equivalent of this, the plant crinkles or lodges long before it matures. A friend, who employed an excellent Scotch farmer, soon after the Peruvian guano was introduced into this country, sent him a few bags, with instructions to sow 300 lbs. per acre, on the field allotted for oats, which was previously in good condition. Thinking his employer somewhat demented in limiting the quantity to such a trifle, as he deemed it, he applied 700 lbs. per acre, and the result was, as might have been foreseen, the early lodging of the stalks, and the total loss of the crop.

Preparation of the Ground.—The field for oats should be early prepared for the reception of the seed. If stiff land, it is better to plow near the close of the preceding autumn, then sow early in the spring without additional plowing. Of course, deep and thorough pulverization is essential to this crop, equally with almost any other. The use of the heavy harrow and field roller in preparing the soil, is essential in those instances specified for the wheat crop.

Varieties of Seed Oats.—Forty or more varieties of oats are reckoned in Europe, most of which have originated from accidental specimens found in the oat fields. We say *accidental*, according to the current phraseology; but nothing is accidental in Nature, or produced without sufficient cause, and strictly in accordance with the inevitable laws impressed upon

the plant or animal. These laws are simply hidden, and it is only because unknown to us, we call them accidents. These varieties are all unquestionably the effects of *self-hybridization*, or of long-continued cultivation in particular soils and climate, which gradually impart a fixed character to the plant. We have tried many of the best European kinds, which have proved decidedly superior on their first introduction here; but owing to our dry and hot summer climate, the seed is liable to degenerate.—We however, know a gentleman, towards the east end of Long Island, who has cultivated a heavy variety he received from Washington ten or twelve years ago, and has maintained their distinctive character of plumpness and weight, till last year, when the excessive droughth lessened the weight, though it did not in any respect diminish the exterior plumpness of the grain. This experiment confirms our belief, that some of the heavy varieties may be maintained in nearly their original excellence even in this country, with careful culture.

The kind usually cultivated here is the White common oat. The Black is often raised in western New York and Pennsylvania. Both varieties are elongated with a tendency to awns but are hardy and productive. With a kindly soil and under proper management, the heavier, round, plump, awnless kinds are the largest yielders. Such are the White Poland, the Imperial, the Potato, and the Dyock or Egyptian oats.

Quantity of Seed per Acre.—Too thin seeding is the practice in this country. Nothing will justify this but thin soil. The oat, like spring wheat, has to grow quickly, and has not time to tiller much. Seed enough, therefore, should be applied to allow it to grow up and mature at once. If sown broadcast, from three to three and a half bushels per acre, on good soil, are required, and sometimes four may be advantageously sown. If the drill is used for sowing in rows, two-thirds the quantity is sufficient.

Harvesting is too often deferred beyond the proper period for securing the greatest value of straw and grain. The grain is intrinsically better—more nutritive—before it is fully ripened, than when *dead ripe*. The straw, of course is far preferable. The proper time for cutting, is when the straw has changed at the bottom, and the berry has become so hard as not to

yield readily to pressure between the thumb and finger. It should have passed from the milk to the dough state. For seed, the oat ought to be well ripened before cutting.

Curing.—Oats should be thoroughly dried in the field before stacking or threshing, as the slightest mustiness is injurious to horses. It impairs the nutritive value of the oats beside rendering the animal liable to disease. Oats ought to be stored for some months after threshing, before they are fit to use. They are apt to produce grease, flatulence, and rough hair, in horses that are fed upon them unless they have been thoroughly cured.

Bruising Oats before feeding is great economy, instead of feeding whole. It saves just as much muscular exertion of the animal; he feeds quicker and lies down to his digestion much sooner; and you are only by this means certain that his stomach and intestinal canal are not occupied and weakened by passing a quantity of whole grain, that imparts no nutriment to the system, after having absorbed largely of its gastric and other vital juices. The poultry and swine that have access to the droppings, are frequently more benefitted by such feeding, than the animals to which they are first fed.

Cutting in the Milk for Fodder.—From bad weather, a late season, or some other cause, it may be advisable to cut oats when in the milk, and cure them the same as hay. When our grass crop was short we have often done this, and found them as valuable for winter feed as the best of Timothy or Red Top. They ought to be cut finely (without threshing) with a hay cutter, previous to feeding.—*American Agriculturist.*

Reasons for Deep Plowing.

The deeper the soil, the more deeply the roots are permitted to descend, and the more widely are enabled to spread themselves—unless they penetrate a substratum unhealthy from wet, or the too great prevalence of an unfavorable mineral substance—so much the more luxuriant and productive is the vegetation likely to prove. The depth in which the roots of plants will go down in search of food or moisture, where the soil is in a condition to be penetrated by them, is greater by far than superficial observation would induce one to suppose.

Some writers assert, that the roots of certain plants—the lucern, for example—go to the depth of fifteen, twenty and even thirty feet.—This seems, indeed, to be incredible. Red clover, we know, will extend its roots to the depth of three feet; and wheat to the depth of two or three feet, when the condition of the soil is favorable to their extension. In the light, alluvial soil of our Wisconsin prairies, there can be no doubt that this degree of penetration is often attained, where deep plowing has preceded the sowing of the seed.

Von Thaer, the distinguished agriculturist, says he has “pulled carrots two and a half feet long, the tap-root of which was probably another foot in length.” The tap-root of a Swedish turnip has been known to extend 39 inches, and according to Coleman, the root of Indian corn full six feet.

Extraordinary as these statements appear, they are doubtless true; and the lesson they teach is one of practical importance to every farmer. Deep plowing will secure a more thrifty and luxuriant growth. By due attention to this simple and obvious truth, the husbandman will give every opportunity for the roots, and their extremely fine fibres, to extend themselves as far as their instincts may prompt them, and reap his reward in increased yields and a more healthful growth. Try it, and see.

SORREL.—The presence of this production—grass we are not permitted to call it—is always to be considered as an indication of a lack of calcareous matter, for where the lime in the soil is sufficient, sorrel will not grow. On all light silicious lands, lime has consequently been found a most useful article, and its application invariable attended with highly favorable results. And just in the ratio of its uses whether in compost or in its natural state, so far as our information extends, has been the diminution of the sorrel crop.—*New England Farmer.*

TO REMOVE STUMPS.—If they are dry, set them on fire; if not, chain an upright lever, from eight to ten feet in length, to them, and hitch a yoke of oxen to the upper end of the lever. If the lever is a good one, and firmly chained, the stump will be keeled over very easily. Stumps decay soonest if cut high, as they then hold most water.

Bones.

Save all the bones of the meat consumed on your place, and every other place, as every 290 pounds dissolved with 100 lbs. of sulphuric acid, diluted with twice the quantity of water, if mixed with 10 bushels of spent ashes, will fertilize an acre of ground sufficiently well to carry it through a four or six years relation—to be harrowed in.

Attention to such things, may be considered a small matter, but attention to such things, though they may be thought *small* are calculated to produce large results: for an acre thus manured which previously would not bring more than four bbls. of corn, may be made to produce ten bbls. and continue in good heart for several years. The world itself is an aggregation of small particles, so formed by our Creator that man should not hold himself above so divine an example.

While upon this branch of the subject, we will remark, that there is scarcely a farm or plantation of any considerable size in the country, whereon there are not soap-suds, pot-liquor and urine enough spent annually to fertilize 100 loads of marsh and river mud, woods-mould, and kindred substances, so as to make the whole the most enriching manure, if these substances were, as made, poured over the rough materials named, and a little plaster sprinkled thereon. 100 loads thus made would manure five acres thoroughly and well, and make it bring as many bushels per acre of any vegetable product as would 300 lbs. of guano per acre—with the difference in favor of the former—it *would last longer*. To be sure, the hauling and spreading might make it cost more but then being of domestic production, the fact of its being so ought to commend it to attention.—*The American Farmer*.

Selection of Breeding Animals.

Allow me, through the columns of your journal, to draw the attention of farmers more to the selection of the male animals, which they breed from. Let them not be satisfied with a bull because he is handy by, or because nothing is asked for his services. Better drive the cow two or three miles, and pay the price asked for a thoroughbred or a high bred grade.—The calf, if sold to the butcher, will fully pay

the difference; if allowed to grow up, will do much more. I could but remark a day or two since, when looking at a couple of pigs of the same breed, the difference between American and English farmers. The sire and dam of one of the pigs were imported. The ancestors of the other one were also brought from England, and at the time were probably as good as any there. The first pig was a fine-boned, short-legged, small-nose, well turned animal; while the other was much coarser every way; a good representation of her great grand parents, no better at any rate. A person not acquainted with the breed would not think them the same. The American had been satisfied with her ancestors, as they were when they came into his possession, being perfectly contented if the pigs were only as good as their mother. The Englishman kept trying to improve upon them, and did so until now he has succeeded in breeding an almost perfect animal.

There is scarcely a breeder of improved stock in this country, who can show animals of his own breeding, superior to those he first started with. Many of them will be found not even equal.

The farmer will find it very much to his advantage to be very careful in selecting the male. Many a penny may be so made, and much pleasure afforded in seeing in place of his present long-legged, raw-boned stock, easy keepers, good milkers, and well shaped cows.

The breeders' attention may be called to the foregoing remarks with equal advantage. In selecting the male let him not be governed by price; better pay for a really good animal five times the sum asked for an indifferent one.—He will find this to be the rule, whether he regard it with an eye to the money, or with the desire to improve his stock. If in the latter way, no one will deny it; if in the former, experience will teach him, that with most people it is the good points of the father, more than those of the mother that sells their progeny.—*Am Ag.* S**.

SOWING GRASS SEED IN AUTUMN.—The *American Farmer* recommends for the late sowing of timothy seed, that a peck of buckwheat per acre be sown at the same time. The frost cuts the buckwheat down, where it will remain to protect the young plants through the winter.

From the Country Gentleman.

Keeping Poultry in Large Numbers.

LUTHER TUCKER, Esq.—In the Country Gentleman of 25th inst., D. H. R., of Hartford, Connecticut, wants to know *how* to build a chicken house for "about 1,000 fowls." If my poor opinion is worth anything, *he will not build it at all*. Fowls, in any large number, will not thrive unless they have a *wide range*.—They are, partially, a grazing animal. When the ground is bare of snow, in winter, they pick the grass if they can get it, and are fond of *green* vegetables of any kind. In summer they pick and eat grass every day. They are great scavengers after slugs, insects, and all kinds of flesh. They are better, also, for having some flesh food in winter; and abundant *air, fresh and pure*, they must have *always*. Although I have seen it tried, I never knew a large collection of several hundred fowls succeed *in a confined place*.

A few years ago some enterprising man from the country came near town, and enclosed an acre or two of ground with a high picket fence, and put up a building, at an expense of near or quite a thousand dollars, intending to supply eggs for the Buffalo market. He had his barn well done off with any quantity of roosts, nesting places, and other conveniences. He started his concern with seven or eight hundred chickens, and for a few weeks, crowing, cockfighting, laying and cackling went on to his heart's content. He had food of all kinds for them and great anticipations were indulged of fortune-making in his chicken enterprise. But three or four winter months told the story. The fowls got diseased—the hens first eat the feathers off the *roosters*—or what were left of them after they had *fought* themselves almost bare, and the hens unfledged, in the same way, each other. They stopped laying, were tormented with lice, got the "roup," went moping about the place, and died off like a pestilence; and by spring, but a few miserable, sickly things were left, with scarce life enough in them to crow up the morning!

The difficulty was not in want of food nor care. But, from the necessity of the case, they were crowded in their roosts; they were disturbed by each other in their nests, and had not room enough any where, even with the outside range of an acre of land. The truth is, that to

flourish, hens must have their *liberty*, when kept in large numbers. They want to range the fields by day and not be crowded at night. They want a variety of food and to help themselves to it. They need exercise, pure air, and enough of both. I knew one man, or rather the man's wife, in the Scioto Valley in Ohio, who kept five or six hundred fowls—that is she told me she had that many—and I don't doubt it, for the whole territory, for acres about the farm, was speckled with them by day, and the trees, and the corn-cribs, and the barns, and the sheds were filled with them at night. They had a great big farm of a thousand acres or more, and full corn cribs for many rods in length, where the hens went at pleasure, and they made nests under the trees, and among the bushes, and all about the buildings, and in the back kitchen, and just where they had a mind to; and they sat on their eggs and hatched out their chickens at will—a self-sustaining poultry establishment, in fact. This plan worked, but as to the profit of it, I doubt whether the old lady could give any intelligible account in the matter.

No.—I believe the only way to make poultry profitable is to keep them in the "old way."—Proportion the number to the ground and buildings you have. Give them liberty to run at large for a portion of each day in warm weather, with comfortable quarters in winter, and pure air always. I have known sundry other enterprises, like the Buffalo one I mention, tried, but I never knew one *permanently* successful. They were all in turn abandoned.

Yours truly,

L. F. A.

Black Rock, Jan. 2, 1855.

HOW TO MAKE GUANO.—Save the manure from your hen-roost:

- 1 bushel of hen manure;
- 4 quarts of plaster;
- 4 " " ashes;
- 2 " " hay salt;

and mix well together. Now is the time to do it. This is equal to any guano that ever was transported over the big waters. Try it and satisfy yourself, and it will save a great expense to the farmers.

Cows well fed in winter give more milk in summer.

Reclaiming Swamp Lands.

BY DR. J. REYNOLDS.

This subject is beginning to arrest the attention of New England Cultivators. No subject connected with farming can more properly occupy the thoughts of the farmer, who has such land, still unreclaimed, upon his farm. The frequent droughts to which we are subjected, are teaching us to set a higher value upon lands, than we have hitherto done. Experience is showing us that they are the most productive and the most reliable lands which we cultivate. It was formerly supposed that potatoes grown upon such lands were more liable to disease, than those grown upon uplands. But I think the experience of the last two years has shown that potatoes grown upon peat lands, are as little liable to rot, as those grown upon any kind of soil whatever, while the yield was much larger than upon any other soil.

One of my neighbors, the past season, realized a clear profit of ninety dollars an acre from a peat swamp cultivated in potatoes, which three years ago would not have sold for twenty dollars an acre. Now the land is worth a hundred dollars per acre. One of the finest pieces of reclaimed land which I have seen is situated near the centre of Carlisle, on the road from Concord to Lowell. I think it contains not less than twenty acres. A few years ago, it was an unsightly swamp, filled with stumps, hassocks and bushes. The water stood upon a large portion of it, most of the year. It was the favorite resort of bull-frogs and toads. The blueberries were the only product of any value that it yielded. The pleasant memory associated with it is the song of the blackbirds that sported and whistled around its margin in the spring time. By skillful and indefatigable labor, it has been converted into one of the most level and beautiful meadows to be found in Massachusetts. It always rivets my attention when I pass by it, and I don't cease to look at it while any portion of it is in sight. Immense quantities of roots have been extracted from it, which have been used for fuel. Its surface has been smoothed by the bog hoe and the plow. It has been dressed with a compost of barn manure and gravel mixed together upon its margin.—Small portions of it have been reclaimed annually in this way, principally by the labor of the

owners, until it has now been converted from an offensive blotch upon the bosom of mother earth, into a spot of beauty, that delights the eye of every beholder. I have been informed that a portion of it cultivated the two past years in potatoes, yielded a clear profit of \$100 per acre. Most of it is in grass, and yields from two to three tons per acre of fine hay. This land, a few years ago, was not worth \$10 per acre, now it is worth \$200. The secret by which \$100 has thus been converted into \$4000, is through draining. The fuel which the owners have taken from this swamp, and the potatoes which they have grown upon its surface, have paid them for their labor from year to year, and now they have a valuable estate which will continue to yield them large crops, with but little expense in its cultivation. How could they have made a more profitable investment than this? But they did not invest money.—They have created this property by their own labors, and the proper question is, in what way could they have employed their labor more profitably. The effect produced upon such lands by draining is truly astonishing. There are several reasons by which the beneficial effects of draining may be accounted for. But we shall speak of only one of these reasons at present.

Draining elevates the temperature of the soil many degrees, and thereby fits it to yield a vigorous growth to plants, which before refused altogether to grow upon it. When a soil is saturated with water, the most intense heat of the sun can raise its temperature but very little. If you place a kettle filled with water over the fire, the temperature of the water will rise rapidly until it reaches 212 degrees. The water then begins to be converted into steam.—You may continue to add fuel, and apply the bellows, but the water grows no hotter. All the caloric added is rendered latent in the change of form which the water undergoes.—In other words, the caloric is carried off by the steam as fast as it is imparted to the water.—Steam is water combined with a certain amount of caloric. Abstract this caloric from steam, and it becomes water again. So the heat of the sun poured upon a wet soil, is employed in converting a portion of the water into vapor, and is conveyed away by the vapor, just as the heat of the fire is carried away from the water by the steam. Thus the temperature of the

soil of the swamp filled with water, is several degrees lower than that of the soil at the adjacent dry land, and you cannot by any possibility raise the temperature of this soil until the water is evaporated from it. When the water in the kettle is all converted into steam, you may heat the kettle to a red heat. So when the swampy soil is freed from water, the heat of the sun will warm it equally with adjacent lands, and indeed its temperature will often be found higher than that of other lands, for its black carbonaceous soil absorbs caloric more rapidly than brighter colored soils. Thus the first effect of draining is to prepare the soil to be warmed by the sun. It is equivalent to transporting it many degrees south into a more genial clime. It is the first step in the redemption of such soils; all other means without this will be of no avail. You may level and plow and top-dress, and sow grass seeds. But it will constantly tend to return to its natural state. Meadow grass will be constantly coming in and the herds grass and clover constantly dying out, because the soil is not warm enough to produce any other kind of grass.—Many swamps and meadows overlie a stratum of sand, or hard pan. The draining should, if possible, be sufficiently deep, to carry off the water from the whole depth of overlying soil. Whether the water is carried off only to the depth of a few inches and the soil is left wet and muddy below this, the water is drawn up by capillary attraction to the surface, and the process of evaporation is then kept up, to such a degree, that the temperature is not sufficiently elevated to afford the needed stimulus to the roots of plants. Hence the object aimed at is not attained. Deep draining, that shall free the whole soil from stagnant water, is the only draining that can be effectual, or that is worth attempting. In many instances border draining that shall cut off the spring water from the surrounding highlands is the only effectual method. But enough for once.

♦ ♦ ♦
BEE MOTH.—Where peach leaves, pounded with salt, are put under a bee-hive, I have not seen a bee-moth. Although my hives have heretofore suffered much from this source, the adoption of this plan has caused the moths to come out missing.—*Prairie Farmer.*

♦ ♦ ♦
Now is the time to speed the plow.

Experiments with Boiled Potatoes.

No fact in rural economy is better established, than that cooked food is far more valuable for feeding animals, than the same food when given in a crude or uncooked state. Probably every practical man is aware of this, yet very few avail themselves of the advantages it is calculated to secure. Last season I commenced boiling potatoes for a hog, allowing him one peck a day, and the same time shut up his mate—about the same size,—the first being only five pounds heavier, and began giving him uncooked potatoes. They were both fed at the same time, morning, noon and night, and both were allowed all they would consume. Now while the peck of boiled potatoes amply sufficed for the first, the peck of unboiled ones did not suffice for the second; he was restless, continually traversing his pen and squealing as if in distress, while the first took his breakfast, and then quietly retired to his straw where he enjoyed his *siesta* till his dinner arrived, which was precisely at 12 o'clock, M. Aware that the allowance was insufficient for the wants of the system, I increased it, giving him twelve quarts per day instead of eight, the quantity with which I had commenced. This kept him somewhat more quiet, yet at times his old restlessness would return, with its usual accompaniment—squealing, but no farther alteration was made, and he continued to receive his twelve quarts per day—four at a meal—till the experiment was completed, and both put up “to fat.” On weighing the two, I found that the one fed on one peck of boiled food, had gained one hundred pounds in three months, while the one fed on raw food, had increased in weight but fifty-six, scarcely more than the increase of growth—and the start which the first one thus gained, kept him in advance of the other till both were brought to the tub. Some may say that the cost of fuel, and time in cooking, would be more than an equivalent for the forty-four pounds gain; and so perhaps it would; but it is not contemplated to cook with ordinary apparatus, or for one hog only. Where there are several to feed, the farmer can afford to furnish himself with a *steaming apparatus*, which will render the business both economical, and easy to perform.—*A Montgomery County Farmer, in Germantown Telegraph.*

Standard for Saxony Sheep.

In re-publishing the following excellent article from one of the early volumes of the *Wool Grower*, we think no apology is required. It is the best standard for Saxony sheep that has yet been put in print, and ought to be in the hands of every grower of fine wool.—P.

Perfection should be the aim of all; and as the Saxony sheep have been brought to the highest state of perfection, as producers of extra fine wool, it is my desire to make the description so plain that a young wool grower, who deserves these rules, in buying or selecting for breeding, will soon have a good flock.

First comes the description of a pure blood Saxon buck. He should be of a medium size, (and I consider a medium sized buck to be 3 feet 9 inches from the nose to the root of the tail,) around the body 3 feet 2; around the flank 3 feet 6; from the breast 2 feet 6; in height 2 feet 3; he should be a little longer than a Merino, and not quite so heavily built. The back almost straight; broad over the kidneys; body round; the neck starting almost level with the tops of the shoulders; tapering and becoming round towards the head. The head small and neatly set on; no loose skin on the upper part of the neck, or very little; the hoofs short and pointed; well quartered; strong, active and spirited; his eyes bright, pleasant countenance and tame; the skin smooth and healthy looking. When walking with his side to you, he should look finished and gay. He should look and feel woolly, not stiff or hard, but soft. The same rules should be observed in selecting ewes, only they are a size less.

Then comes the description of his wool:—Fine wool on his forehead; wool on his crown fine, short; downy looking wool on his cheeks; the under part of the neck as fine as possible, and crimped. The wool on the body to be as even as possible all over, and should be crimped 24 to 28 crimps to the inch; the crimps should run plain and evenly across the sample, and up to the top, resembling crape. It should be fine, soft, thick set or compact on the sheep; should be so that it will stand straight out, showing small strands or divisions on the surface of the fleece; the belly well covered with fine wool; the hip wool soft and also crimped. The wool should be a clear white or cream color; moderately yolkey, and the surface of the

fleece a little dark. There is a very good kind of wool, that is very fine and close, in which you cannot trace the crimps—you must decide by the smallness of fibre. The fleece when shorn, its felting properties should keep it united; when spread, resembling a spider's web; it should be soft and easy rolled; the length of wool after it is washed and shorn, is from 1-1-2 to 2 inches.

When a young wool grower goes to select, he should keep the above described sheep or some other model sheep before his mind; it would help him to have precisely one-fourth of an inch marked on his thumb nail, to lay the sample on and count, and if they count six or seven crimps in that space they are very good. You should cut the samples with scissors, for pulling them injures the wool and the sheep both.

When the wool is well crimped, it is superb. Sheep that are soaked and washed under a waterfall until the wool is pure and clean, will average 2 1-2 lbs. per head—if washed in the old way, they will average 3 lbs. You can have your sheep exquisitely fine, or fine and heavier fleeced, just as you select them to breed from. Then why not breed an American sheep equal to any in the world, or one that will suit our notions?

Remember, 'like begets like.' Be careful to guard against the following faults: Coarse, hairy faces; coarse hairs or uncrimped wool on the under part of the neck; stringy on the top of the shoulders; bareness of the belly; coarse, hip wool, and coarse hair on the inside of the thighs; the skin pale or covered with spots; slab-sided, poor on reasonable keeping; sunk, in the neck; a little coarse; low on the side.

In conclusion, try to have your sheep with as many of the good marks as possible, and very few of the bad ones. Annually select, fatten and sell faulty sheep to the butcher. By so doing, you will have the profit and pleasure of having a fine and beautiful flock.—*Wool Gro. and Reg.*

PROFIT OF COWS.—In 1853, I kept ten cows, The calves, butter, and buttermilk for pigs, amounted to \$46 75 per cow; in 1854, eight cows and two heifers in first time; one 2 years old, the other 3. The calves, butter and buttermilk of these last, amounted to \$44 06 per cow. My cows are common natives, and kept in the common way of keeping.—*Cor. Am. Ag.*

Breeding Horses.

One of the principal mistakes of the present age has been the enhanced value set upon horses of great size. There is a standard of excellence which governs the size of the animals; those most essentially which are required for labor. It is often remarked that "a good big horse is superior to a little one." In theory it appears to be a just conclusion, but practice inquires "where the good, big one is to be met with?" There is likewise something more than power requisite to complete a good horse; that is, the will to give effect to the power. This excellent faculty is derived from the nervous excitability of the brain and nervous system, which influences the muscles of locomotion; and when this property exists extensively, unless it be counterbalanced by some physical inability, ill health, or want of sufficient nutriment, the animal will possess equivalent good qualities. When the relative proportion of horses and mares are studied, it will be found that the horse is naturally of greater size; it is, therefore, by no means desirable to seek for mares of the largest frame. Nature is an excellent monitor on such occasions, and does not suffer ordinations to be transgressed with impunity. An oversized mare is very uncertain in her produce; one year she will give birth to a puny, weak, leggy foal, and the succeeding one will, in all probability, be too bulky, inactive and clumsy.—*English Paper.*

FRANCE AND ENGLAND.—The value of the agricultural produce of France is two hundred millions sterling; of that of the United Kingdom, a hundred and sixty millions; but there is a striking contrast in the proportion of the animal to the vegetable products which go to make up this enormous sum in the two countries. In France the animal products are but £64,000,000, while the vegetable, amount to £140,000,000 sterling. In the British Isles the two items are balanced, each being estimated at \$80,000,000.

THE WHEAT CROP.—The *Denton Journal* says—"Our wheat looks badly, the past winter having been very unfavorable to this important crop. There are fears that much of the wheat has been killed."

Points of Cattle.

Finley Dun, in an essay in the *Journal of the Royal Agricultural Society*, gives the following as the external marks which cattle should possess, that they may produce a healthy and vigorous progeny. The head small, muzzle fine and tapering, nostrils large and open, the eyes full and lustrous, ears small and not too thick, the head well set on the neck, the distance between the ears and the angle of the jaw short, but the width behind the ears considerable, (no dairy cow should have a short thick neck,) the chest wide and deep; the girth, taken immediately behind the shoulders should closely correspond with the length from behind the ear to the rise of the tail; the carcass of a barrel shape, for a thin, flat ribbed animal eats largely, thrives badly, and is unusually liable to diarrhea; there should be little space between the prominence of the hip and the last rib, the quarter large, the measurement from the prominence of the haunch backwards to the rise of the tail, and downwards to the hock, as great as possible; the hide thick and pliant; smallness of bone is a sure indication of early maturity and aptitude for fattening.

THE FRUIT PROSPECTS IN NEW-ENGLAND.—The *Boston Journal* says: "There is no doubt that the season of Spring is very backward this year. Even as late as the beginning of April, when, as a general thing, farmers are ploughing in their fields and planting their peas, and horticulturists are digging in their gardens, the ground is bound in frost. The month of March was unusually cold; but the prospects now are that the rigors of the cold season will soon be over. The prospects for fruit in the approaching fruit season are good. The crop of peaches however, in the vicinity of Boston, will probably be unusually small.

SANDY SOILS.—Improve, permanently, your sandy soils, by hauling on and spreading as much clay as will change their constitutional texture, and give them that cohesibility, the want of which is the radical cause of their unproductiveness. This labor may be performed at intervals of leisure, and with almost equal facility at all seasons of the year.

Sore mouth in sheep may be cured by smearing the diseased lip with tar.

How to Feed Stock Economically.

The due preparation of food for stock is an important matter. Hundred of experiments have established, beyond all doubt, the fact that all sorts of provender, when finely divided, goes a great deal further than when fed in its coarse, natural state. Rough food of every description, not excepting the best of hay, should invariably be chopped up into pieces not exceeding an inch and a quarter in length. This is the uniform practice of all good farmers in Great Britain, Belgium, Germany, &c., and of all the best stock feeders in our Northern States, and no fact in agriculture, perhaps, is better established than its paramount importance. It is desirable and proper at all times, but particularly and emphatically so in seasons of scarcity; and the use of machinery, of the fast hay and straw cutters now in use, diminishes the labor of the thing so greatly as to make the plan a feasible one to every farmer. Wetting, or even thoroughly soaking this species of provender, before feeding, is found to enhance its value.

Corn, too, and every sort of grain, should be ground before it is given to the animals. Not merely crushed, but ground into fine meal. In this condition only can it be used to the best advantage, according to the experience of the best farmers of the day. The proper plan is to mix it with the cut food above described, and it is important that it should be fine enough to adhere to it when wet. The rough food and the meal thus prepared and fed to stock is found to go farther by from twenty-five to fifty per cent., than the same articles fed in the ordinary way without preparation. Such at least is the testimony of those who have paid most attention to the subject: and the fact that they continue to practice themselves, year after year, what they recommend to others, is a pretty good proof that they do really find it profitable. The mill above mentioned, which has a cob cutter attached, is warranted to grind from eight to ten bushels of corn per hour, by horse power, and much more by steam.

The importance of mixing the cut hay, straw, &c., with the meal, and of thoroughly pulverizing the latter for ruminating animals, is not only proved by experience, but is also made manifest by their physiological structure.—Grain, fed to them alone, passes on directly to

the third stomach, having been but slightly acted on by the gastric juice, and is often voided whole and unaltered, without any profit to the animal. Rough food, however, remains in the first stomach of the animal until it has been repeatedly raised and rechewed, and passes on slowly through the complicated organs of digestion and assimilation peculiar to this class of quadrupeds; and when the grain is thoroughly comminuted and mixed with it, it follows the same road of course, and has a much better chance of being thoroughly digested.—*Piedmont (Va.) Whig.*

Good Horses Wanted.

The improvement of horses is a subject that receives too little attention. The cheapest sire is often used, and almost every worthless jade of a mare is used as a breeder, when colts or horses are in good demand.

In many cases, a colt of an excellent race would cost, in the beginning, not more than ten or twelve dollars extra; and this would frequently add fifty or one hundred dollars to the value of the full-grown animal. Good blood stock will sell, at maturity, more than twice as high as a poor breed. Then it would be good economy to raise the best races only, even if the extra cost, in the beginning, is equal to the expense of keeping the young animal until he is fit for labor.

Why is so little attention paid to horses by our agricultural societies, and why are so few seen at our cattle shows, while the horse is selling in the market at a higher price than any other animal? We seldom see more than half a dozen horses at any of our shows, and frequently there is not one on exhibition. This shows a deficiency somewhere. Either sufficient encouragement is not given for good horses, or there are but few animals worthy of being shown for a premium.

The very high price of good horses should encourage every one who raises this stock to pay great attention to the breed. This would be economy. He should exercise intelligence, and act upon the principles of science, in the beginning, and not depend wholly on hard labor for gain.—*N. E. Farmer.*

Love labor; if you do not want it for food, you may for physic.



Horticultural.

The Grouping of Roses.

[We find in the *Courier*, published at Louisville, Ky., the following advice in reference to the grouping of this splendid variety of plants in the embellishment of grounds. We are not familiar with all these varieties, but we know many of them to be as described, and we give the entire article a place in our Journal, as the opinion of a professed florist, who appears to understand what he writes about.—Eds. P. L. & A.]

In a late number of our paper, we endeavored to point out the rewards that may be gained by a proper grouping of roses, and we promised to give some aid towards this enjoyment by giving a list of such roses as may be relied upon for this object. Those who carefully study the whole subject may give an infinite variety of effects by a judicious grouping. But we proceed to the names and characters of roses for the purpose we have indicated :

We begin with the *Remontants* or *hybrid perpetual* Roses. These should be the favorite of the garden. They grow luxuriantly, bloom freely through the season, have a variety of colors and a delightful fragrance. Among the preferable ones of this class, we rank the following—

Baronne Prevost—Bright red, and very large.

Cornet—Bright rose color, with odor of the Cabbage Rose.

Dutchess of Southerland—Light pink color, and ranked by the rose fanciers of France as among the first.

Geant des Batailles—Brilliant crimson, superb in size and appearance, and deemed nearly perfect by rose fanciers.

Jaques Lafitte—Deep brilliant rose color, and a splendid flower.

La Reine—Brilliant glossy rose, large and superb. This is a prime favorite with rose cultivators.

Madame Laffoy—Dark crimson, very brilliant, large and splendid.

Marquise Bocella—Pale blush, dwarf.

Mrs. Elliott—Bright lilac, crimson.

Prince Albert—Rich velvety crimson, one of the most beautiful of the whole family of perpetuals. We have never seen any Remontant rose that we preferred to this. We are glad to see that it is becoming a denizen of Cave Hill Cemetery. It will be a beautiful gem in that city of the dead.

Rivers' Perpetual—Is another great favorite of those who know the merits of the Remontant roses. Its colors are very rich, and it is quite a prolific bloomer.

Sidonie—A brilliant rose color, very perfect.

William Jesse—Light crimson, lilac tinge, large and very beautiful.

The name *Remontant*, meaning to grow again indicates the character of this variety. A succession of blooming periods may be looked for from the Remontants. The perfection of the foliage, variety in the colors of the petals, in the shape and size of the flowers, and the delightful fragrance of the Remontants have made them welcome guests in every flower garden.

BOURBON ROSES.—The Bourbon Roses are well called ever-blooming plants. They richly reward the cultivator. We name a few choice specimens—

Leveson Gower.—This is esteemed equal to any of the Rose family. It is very large and double, and of a deep rose color. It is equal in form to the *Souvenir de Malmaison*, and that is merit enough.

Hermosa.—This is an old variety, but none of the new favorites have been able to displace it. The flower is cupped, very double and perfect, and the plant is one of the most prolific of bloomers ; color, a very delicate rose.

Queen of the Bourbons.—The most indifferent person could not pass this plant in bloom without pausing to do homage to its beauty.—The flower is a delicate fawn color, cupped beautifully, very fragrant, large, and its rich glossy appearance makes it resemble wax work.

No group of roses can be complete without it.

Souvenir de Malmaison—We are sure that no one who has properly cultivated this rose ever hesitated in putting it at the very head of all roses. It is perfect. The foliage is unsurpassed in richness, the flowers cupped, perfect in form, very double, with thick velvety petals. The flower is the largest of all the roses, but its petals are compact and shingled with perfect regularity. The flowers are often from four to five inches in diameter, and their color is an exceedingly delicate blush, tinged with cream. It is one of the most prolific of bloomers. This is a deserved favorite in Cave Hill Cemetery, and it flourishes there in all its perfection.

Raymond—A deep pink, tinged with purple.

Emile Courtier—Four cupped, double and perfect, and color a deep rose.

Enfant d' Ajaccio—A rapid grower, making shoots from twelve to fifteen feet in length.—Flower double-cupped, very fragrant, and a brilliant scarlet crimson.

The Bourbon roses properly grouped with the Remontant family, and well cultivated, would be the pride and glory of any grounds, and we hope to see Louisville extensively ornamented in this way. But the means of grouping are not yet complete.

The *China* or *Tea Roses*, are essential to a tasteful grouping of the plants. These, like the Remontants and Bourbons, have perfections of their own. We name such as will aid in making charming groups. They are peculiarly adapted to bedding out upon a lawn, but also make rich pillar roses. An Englishman, living in Rome, made a number of rose arcades, called Pergoles, which he ornamented with the China rose. Andot, who was entranced with the splendor of the beauty, says: "It is impossible to conceive a more splendid bloom than that of these roses trained upon pergoles so graceful. The foliage was hidden under the gorgeous drapery of the glittering roses."

The China roses should be kept free from weeds, and young shoots should be kept pegged down, in order to make masses of foliage and bloom of every variety of tint. Parsons, in his great work on the Rose, speaks commendably of the adaptation of the China rose,

to the terraces of grounds. The slopes should be planted with dwarf China roses, the shoots of which will reward the labor. But to the varieties.

Adam—Flowers cupped, double, very large, and perfect in form; color, rich and glossy rose.

Agrippena de Cramois—One of the oldest, but the principal favorite of this class. It is beautifully formed, and its rich crimson color is unsurpassed. It is hardy, and a prolific bloomer.

Devonensis—A beautiful flower of immense size; color, a fine creamy white. The flower bud is the most beautiful of all with which we have any acquaintance. The odor is very rich.

La Sylphida—A pale yellow, and very beautiful.

Barbat—A fawn colored flower, and superb.

Niphetoës.—Large pure white, very splendid.

La Pactole—Form of flower, cupped; color pale sulphur; centre, deep lemon yellow. An abundant bloomer, and quite hardy.

Suffrano—The half opened bud is one of the gems of floral beauty. It is a rich fawn color. Of all the fawn colored roses this is the most beautiful.

Souvenir d'un Ami is ranked by rose fanciers as the queen of tea-scented roses. It blooms freely, and its large imbricated flowers resemble those of the Malmaison; color, a delicate crimson, shaded delicately with rose tints.

Triumphe de Luxembourg—An old but still a favorite variety. The plant is of luxuriant growth, the flowers of immense size, rose and buff color, and very fragrant.

NOISETTE, OR CLIMBING ROSES.—*Ami Vibert*.—A small fragrant, perfectly double, pure white flower.

Belle—White, with rosy centre.

Fellenberg—Very prolific, bright crimson flowers.

Jaune Desprez—Bright fawn colored flowers; one of the most fragrant of all the tea or Bengal roses.

Opfire—Bright salmon and fawn colored flowers; one of the most beautiful of its class.

Monstreuse—A fine blush, and a capital rose for pillars.

He that may study and cultivate these varieties will obtain rewards and gratifications from which he will not be willing to part. And it must be remembered that a perfect feast of rose pleasures cannot be enjoyed without having members of the four classes we have described.
—*Plough, Loom and Anvil.*

Sympathy with Stock.

Do not believe that they are so dull as not to understand and appreciate your kind feelings. Last week a noble horse got loose upon the farm, and for an hour gave the astonished neighbors the most wonderful specimens of "ground and lofty tumbling," they had ever witnessed. Coming to spots in the garden where the loam was light and deep, he would plunge, into it, roll, then rise, shake his sides, and with nostrils red and expanded, with mane, tail, and heels flying, showing his shoes nearly ten feet in the air, he bade defiance to his pursuers and their long poles! He gained the centre of the field, and then stood snuffing the gale from every point, the noblest animal of creation, next to man. A boy approached him with outstretched arm and gentle words—"Poor fellow! Come here. I will not strike you." These were more potent than the poles had proved; the horse met him, rubbed his nose against the boy's jacket, and said as plainly as he could speak—"I'll trust you; we are friends," and was led away to his stall. The animals of the farm soon become acquainted with the looks and manners of those about them, and will usually return such treatment as they receive.—*N. E. Farmer.*

HOW MUCH SHOULD A COW EAT.—Cows to give milk, require more food than most farmers imagine. S. W. Johnson, writing from Munich to the *Country Gentleman*, gives an interesting report of some experiments of which the following is an extract:

"Our trials have confirmed the view that cows, to give the greatest possible quantity of milk, must daily receive and consume one-thirtieth of their live weight in hay, or an equivalent therefor. If more food be given it goes to the formation of flesh and fat, without occasioning a corresponding increase in the yield of milk; but if on the contrary less food be furnished, the amount and value of the milk will be greatly diminished."

BEST VEGETABLE FOR MILCH COWS.—The vegetable I wish to recommend as the best, all things considered, for milch cows in winter, is white flat turnips. Some perhaps, will object to the turnip, because it will affect the taste of the milk and butter. So it does if fed raw; this can be avoided by boiling. For each cow boil half a bushel of turnips soft; while hot add five or six quarts of shorts, which will swell and you will get the full worth of it. A mess like this fed to a cow once a day, will produce more milk of a good quality, than any other feed at the same cost. Turnips fed in this way do not taint either the milk or butter. One thing in favor of turnips as feed for cows, is, they can be sown in August, or as late as the first of September. I sowed some as late as September, last year, that were very fine.—Turnips are also very profitable feed for pigs, when boiled in the same way as for cows.—*Cor. Northern Farmer.*

SHEEP HUSBANDRY PROFITABLE.—Less labor and care is required by sheep than by any other domestic animal. They are also less dainty, feeding, as experiments show, upon more than one hundred species of plants which cattle and horses refuse. Pastures are thus improved by their clearing away many foul and useless weeds, so that better herbage can take its place. It has been found that a pasture in most dairy sections which will carry 20 head of full grown cattle, will carry 20 sheep beside, without detriment to the cattle, and with positive benefit to the pasture. This is the opinion of some of the best New England farmers.

MILCH COWS.—The "best and cheapest" food for milch cows which we have ever found, was good corn fodder, clover and herd's-grass hay, and half a bushel, or three pecks of roots,—say, beets, parsnips, carrots, flat turnips and ruta bagas,—per day, for each cow, fed to them in the morning soon after they were milked. Under this treatment, they gave more milk than under any other, and we found it the cheapest. Good corn fodder will produce milk abundantly.—*N. E. Farmer.*

Make it an invariable rule to cut all your hay, straw and fodder, before feeding it to your stock. Your cattle will thrive better on less food, and you will save not less than twenty per cent. of your whole winter's consumption.

Systematic Horse Breeding—Fast Trotters.

The report on "Stallions," in the *Transactions* of the Essex Co. Agricultural Society for 1854, contains some pertinent remarks on the above named subject, from the pen of Josiah Crosby, Esq., of Andover. We condense the following therefrom, giving in brief that which will prove most interesting to our readers.

Until quite recently, very little attention has been given to systematic horse breeding in our country, and the consequence is, that we have few or no horses among us which can be considered strictly reliable for the purposes of breeding. Most of our valuable horses are the direct descendants of English stock, that have been bred with the utmost care and study for centuries, and unless the strictest care and judgment be given to the crossing of these animals, they very soon lose their most durable qualities. Let us cross the best English stock with our best native stock, and we can create a cross of animals adapted to our peculiar wants. The most profitable of the three classes of horses in prominent demand, is the gentleman's and business man's elegant, fast trotting, powerful roadster, which can trot twelve or fourteen miles within the hour, or a single mile within three minutes.

Such a horse, whose pedigree proves him to have been bred from trotting stock for several generations, when crossed with a mare of similar qualities, seldom or never fails to communicate to the offspring the qualities of the parent. But when the fleet roadster is crossed with a draught horse, the offspring is neither a roadster nor a draught horse, but a miserable, an uncomfortable and useless thing. Such colts are invariably foaled with an overgrown body, and with legs altogether too light and weak to support it. They are consequently too light for the carriage and too feeble or too nervous for the plow, and generally pass their whole lives in the hands of jockeys, and are "dickered" from one to another, till at last death comes to their relief, and consigns them to the "knackers," or the compost heap.

To raise good horses, we must be sure upon the start that the fountains are pure—we must shun the mare or horse which has spavin, ring-bone, cur, chest-founder, contracted feet, or any disorder that is capable of being transmitted to the offspring. Good horses cannot be

raised from such stock, and though a fair foal may occasionally be produced, the unsoundness is born in his flesh and is lurking in his veins, and sooner or later, will almost invariably start out and claim its victim.

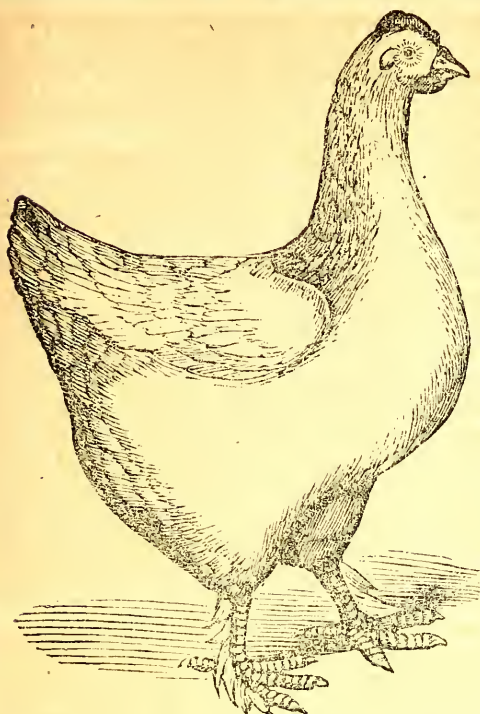
Mr. Crosby thinks the Vermont "Black Hawk," in this class, the best horse ever known. He has proved the horse of horses, the *ne plus ultra* of the equine race. Breeders who are raising colts of this get, out of sound, fast, well-formed and good-blooded mares, may rest assured that they have animals of no ordinary value. "Lady Suffolk" is another American bred horse, strongly tintured with English blood, like "Black Hawk," and the two are probably the best horses in the world. But there is no reason why others cannot be raised which shall equal or even surpass them. And if breeders will go to work systematically, and use as much capital, skill and experience, as are used in most branches of business they cannot fail to be amply remunerated.

The following description embodies Mr. C.'s idea of "one of the best stallions that can be brought in America." "Weight not less than 1,000 lbs., nor over 1,100 lbs. For color, black bay, or chestnut, would be preferable, without a white hair if possible. His age may be anywhere inside of twenty years, healthy and vigorous. He must have a sharp ear, bold eye placed low down in the head, wide forehead, large nostril, sharp shoulder, long wide hip, sloping gradually toward the tail, full across the loins, full breast, wide knee, low hock, wide flat cannon, pastern tolerably long, hoof wide but not flat. He must be able to trot a mile in two minutes and forty seconds, and his pedigree must be traced back through five generations, all from stock of good blood and perfectly sound."

The good farmer wears russet clothes, but makes golden payments, having tin in his buttons, and silver in his pockets. In his house he is bountiful, both to strangers and poor people. He seldom goes far abroad, and his credit stretcheth farther than his travel.

Animals want salt at all seasons. They should either have it constantly or regularly. If supplied only once in awhile they eat too much at one time.

Sow clover deep, it secures it against drought.



BUFF SHANGHAI HEN.—THE PROPERTY OF W. WHITAKER, JR., ESQ., RALEIGH, N. C.

Mr. Editor—Above I send you a correct daguerreotype of my premium buff Shanghai hen, now only twenty-two months old, and weighing ten and a half pounds. I have given some attention to the breeding of the Asiatic fowl, for

two years past: and there can be no longer doubt, that they are far superior to our common *dunghill* stock. As layers, they are better, from the fact that they lay all the year, and their eggs are larger and richer. They are better, because of their size, and their flesh is equal to that of the Turkey. Another reason, and a good one too, is, that they fatten kindly, and are easily kept so.

Of the four kinds, Buff, White and Black, and the Brahma Pootra, my experience would point out the *white* as the *fancy* and *useful*, the *buff*, as the *largest*, the *black* third rate, while the *Brahma Pootra* embraces the useful and the beautiful. The different species, I have bred separate, and find them healthy, *alike*;—the young *chicks* are invariably *robust*, and grow off rapidly, and often, at the age of four and a half months, are the guardians of a little household.

As a matter of profit, every farmer should kill off his old stock of common fowl, and supply their places with at least one kind of the four species above enumerated. They are as easily kept, very gentle, and more ornamental.

The average weight of the Asiatic hen is eight pounds. The cock will average nine pounds. My neighbor, Partridge, has a Brahma cock, which weighs, I think, about thirteen pounds.

W. W.

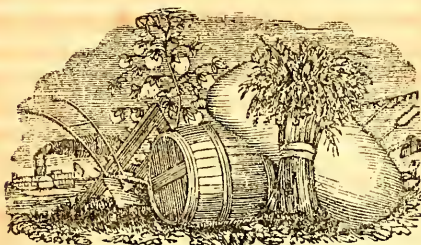
Raleigh, May, 1855.

FRESH EGGS.—Fresh, well preserved eggs always command a high price in the markets of this country, and are, not unfrequently, very scarce and difficult to obtain. The following rule for their preservation, we extract from an exchange:

"In conversation, not long since, with one of our most discriminating and judicious farmers, on the subject of keeping eggs, he informed me that only a few weeks since he took to market a quantity of eggs he had kept in order for a period of seven months. The manner in which they were kept so long a time, he did not desire to keep a secret, and it occurred to me that the fact might well deserve a place in your useful paper. His method of procedure is simply to collect the eggs as soon as laid,

and place them upon the small end, closely packed in a common vessel, as a firkin, or cask, and let them remain unmoved in the open air, only covered to prevent being exposed to breaking. But the great secret is, in my opinion, that of collecting the eggs soon after they are laid, as otherwise nothing will prevent them from decay. Try the experiment, and if you do not succeed the expense is nothing, and if the receipt is true, it is valuable.—*J. C. Tel.*

SCURVY PIGS.—Wash them clean, and rub slightly with buttermilk or grease; give them a dry bed, always in a warm place, and plenty of wholesome food. We never saw a pig yet so inconvertible as to withstand this treatment, and keep scurvy long.—*New Eng. Farmer.*



The Carolina Cultivator.

RALEIGH, MAY, 1855.

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Science and Practice.

It is our purpose to devote some space in our columns hereafter, as occasion may suggest, to the more important lessons derived by the farmer from Agricultural Chemistry. We offer a few remarks at present, in explanation of what we consider the proper relation of that science to practical farming, and with the hope of obviating some of those prejudices against book-farming which tend so much to hinder its usefulness.

All modern science deals either in facts, or in conclusions, true or false, which may be deduced from them. A great amount of injury has certainly been done to the cause of agricultural improvement, by the haste with which unsatisfactory theories have been constructed, by visionary writers, upon insufficient foundations. It is both natural and just that practical men should look with suspicion upon such extravagances of the imagination. But this is only an incidental error, common to the enthusiastic pursuit of various kinds of knowledge. Agricultural science should not be estimated by such results. Its great business is to accumulate all the information that can be obtained, not only

from the laboratory of the chemist, but from the experience of farmers themselves; and it regards a well established fact as another important step in its progress, from whatever source it may have been derived. When a sufficient number of data has been secured, then reason or common sense, may properly draw conclusions and establish general rules for the instruction of the world.

The great difficulty in science, is to obtain the concurrent testimony of many observers to any one item of truth. Without some means of communication among men, this would be impossible. Here then is the advantage of publishing, in the form of books and periodicals, the results of the observation of the farmer, and the experiments of the philosopher. The testimony of many individuals is thus accumulated, from various sources, and made available for the benefit of the community.—Truths are established and promulgated, and old errors are exploded, by a rational comparison of numerous facts.

Practical farmers very properly object to the unnecessary effort of many writers on agricultural science, to clothe their thoughts in an unintelligible language. This error, however, will, no doubt, be gradually abandoned, as science diffuses itself, and common sense extends its influence, more and more, over the empire of knowledge.

But the cause which, more than all others has contributed to the disrepute of agricultural science, has been the too frequent abuse of the process of analysis. Many superficial experimenters have deceived the public with their extravagant and absurd pretensions, professing to be able to determine positively, by the analysis of soils sent to them from a distance, what means are needed for their restoration or improvement. A few handfuls of earth, picked up at random, and conveyed to a chemical laboratory, may enable the operator to ascertain, approximately, the amount of the different constituents of the soil, but cannot suffice to warrant a precise description of its condition. Analysis is important, it is true, but it is not enough to know how much of such ingredients are present. The absolute and relative state of these ingredients, must also enter largely into our estimate of the character and wants of particular soils. The drainage, the exposure, the depth, are all important con-

siderations, which analysis must overlook, but which, nevertheless, have a great deal to do with their productiveness. Nor should it be forgotten that the gases play a powerful part in vegetation, and that they depend for their existence in the soil upon certain conditions which analysis cannot make known.

If the views we have now expressed, be correct, it must be obvious that there is no antagonism between the science and the practical pursuit of agriculture. Book farming is valuable for the truth which it ascertains and confirms, and practical farming would contribute very little to its own improvement, unless its results were made known to the public.—Science and industry are but pursuing different paths to the same great end. They are constantly throwing additional light upon each other, and upon the world. It is time that a more perfect harmony should be established between them—that practical farmers should cease to object to the investigations of chemistry and natural history, and that scientific men should take more pains to render their instructions intelligible to the popular mind. Let the one party devote more attention to scientific principles, and the other abandon its stilts and spectacles, and mingle with the crowd, and we shall then see the result of a combined influence, in the progressive improvement of our country.

Thrift.

A. and B. live opposite to each other on the same county road, and cultivate farms which were originally about equal in quantity, quality and value. A. keeps two or three extra horses, feeds a pack of hounds, a few scrubby sheep, a desperate family of razor-backed hogs, half a dozen hide-bound cows, and a few ragged, filthy, thievish negroes. He is off three or four days in the week to court, to some political meeting, a credit sale, or a frolic. His fences are half down, his barns and stables threatening to tumble, and his wagon, carts, plows, and other implements, stand about in puddles by the road side, or are left to rot in the barn yard. His fields are washed and bare, his meadow has degenerated into a swamp, and the best of his timber has been burnt or cut down to enlarge his domain. There is plenty of manure about the house, but he never finds

time to cart it out. There is plenty of lime or marl to be had, but he never feels able to procure it. His cows eat enough to supply him with abundance of milk and butter, but some how or other they hardly furnish milk enough to put in the coffee. Poor fellow; no wonder he is always grunting and groaning, complaining of "hard times," and accusing the climate of changing for the worse!

On the other side of the road there is a different state of things. B. keeps a few stout horses or mules, well-fed and healthy. His cattle, sleep, and hogs are of improved stocks, and there is not a hungry hound on the place.—The negroes are clothed, fed, and housed well, and are cheerful, industrious, and contented. B. stays at home habitually, gets up early, superintends his affairs, keeps his buildings and fences in repair, improves his cleared land, and saves his timber, attends to the feeding and milking of his cows, devotes some of his spare time to ditching his fields, trimming his orchards, laying off and preparing his garden, and, in fine, turns every hour and every resource to some account for the improvement of his premises, and the increase of his income. He is generally before hand, and seldom has cause to complain of "hard times." He is able to educate his children, to pay the preacher, and to give a dollar now and then to some useful and benevolent enterprise.

Reader, is not this contrast a fair one? Do not A. and B. represent two well-known classes in the farming community? Go then, and avoid the errors of the one, whilst you endeavor to learn wisdom and the secret of success from the other.

TREATMENT OF GAPES.—Dr. A. B. Wylie, of Chester, S. Carolina, has communicated to the *American Farmer*, a new method for the cure of this fatal malady among chickens, which seems worthy of attention. He uses a small round whale-bone probe about four inches long, as large as an ordinary knitting needle at the large end, and gradually tapering. At the small end a thin piece of sponge is sewed on with a fine cambric needle. When used, this sponge which must be no thicker than the large end of the whale-bone, is saturated with oil of Turpentine, gently thrust through the windpipe to the bottom of the chest, then twisted and withdrawn. This dislodges a number of worms,

and the patient speedily recovers. Whether the cure is mechanical, or due to the medicine, appears doubtful. We have seen a simple feather successfully employed for the same purpose.

SALE OF STOCK AT MARSHFIELD.—This property of the late Hon. Daniel Webster, was sold at auction a few weeks since, with all the farm stock upon the premises. We notice that a full-blooded Alderney heifer, three years old, with calf, sold for \$155; her twin sister, not with calf, sold for \$70; a full-blooded Ayrshire heifer calf, one year old, \$37.50; a half-blood Hungarian heifer, two years old, for \$24; a three year old half-blood Devon heifer, with calf by the full-blood Alderney bull, for \$49; a full-blood Alderney bull, three years old, for \$76; one pair working oxen, half Devon, eight years old, for \$155; the Cheviot sheep sold at from \$4.50 to \$12. The South Downs from \$3.12 to \$8.50. We have referred to only a few of the interesting items of the report.

NORTHERN HAY AND BUTTER.—It is always mortifying to us when we notice the large quantities of hay, butter, and such articles, which annually penetrate the interior of North Carolina from distant parts of the Union.—Surely it is time that this dependence for articles of such prime necessity, upon the inhabitants of less favored latitudes, should be renounced by the intelligent farmers of the south. Why is it that in a country where winter is so little known, we do not even produce such things in sufficient quantity for our own consumption? The fault is not in the climate or the soil. It is in *ourselves*. It is the result of a long habit of indifference, which must be broken up and abandoned, if we would not subject ourselves to humiliating commentaries on that sectional jealousy which prefers the *shadow* of political influence to the *substance* of prosperity and power.

ACTION OF LIME.—A short illustration sometimes conveys more meaning than a long discourse. A lecture delivered before an Agricultural Society in Great Britain, some years since, closed with these words:

"The application of dung or any other manure to the soil, to use a familiar illustration, is like giving a feed of corn to a horse—it tends

to strengthen and nourish; while lime may be regarded as the application of the whip or spur—it imparts no new strength, but stimulates into action the power which previously existed."

With some grains of allowance, this may be taken as a fair representation of the action of lime compared with that of common manure. It is not exactly true that lime contributes nothing to the growth and strength of plants, but this constitutes but a small part of its office. The quantity necessary for that purpose, exists in the manure itself. The most important effect of the lime artificially applied, is exerted, not directly upon the plant itself, but upon the dead vegetable matter in the manure and in the soil, which is so acted upon as to be made stimulant and nutritious. The decomposed matters in the soil also react upon carbonates of lime, and no doubt set free a large quantity of that greatest of all the aliments of plants—Carbonic Acid.

A subscriber, writing from Statesville, sends us a handsome club, which he thinks can be considerably enlarged. We learn from him that there is no Agricultural Society in his county. Let our friends in that region take a gentle hint from the *Cultivator*, and organize a County Society without delay. All other professions have their meetings and associations; why not the farmers? Experience, that greatest of teachers, everywhere shows that the influence of local agricultural societies is highly promotive of improvement and progress. We hope our friend will urge this matter upon his neighbors, with effect.

AGRICULTURAL COLLEGE.—The Legislature of Michigan, at its late session, passed an act for the establishment of an agricultural college, to be located within ten miles of the Capital of the State. The tuition is to be forever free to pupils within the bounds of Michigan.

NEW SUGAR PLANT.—A new plant for the production of sugar has been introduced into France from China. It is called the *holcus saccharatus*, and is represented to be much richer than the beet, in saccharine properties.

See our list of PREMIUMS on the last page—This is a fine chance for young men,—Who will get the FIFTY DOLLARS?

Communications.

For the Carolina Cultivator.

Wool Growing South.

BY A NEW YORK FARMER.

There is no branch of farming which in proper locations pays so well as wool growing.—The proper location consists of a dry hilly country, where the climate is moderate, and the verdure plenty, and nutritive. Sheep will thrive in almost any climate from the equator to the pole. But that which best suits them is a temperate one. They do not flourish well on rich bottom or interval lands, for a moist or rich soil is fatal to them. But upon rolling, or hilly lands, or even moderately mountainous, in a warm climate they are beyond all doubt the most profitable stock a man can raise. The writer of this has been connected with the business for more than thirty years, and has not yet seen a year when the sheep have not given a better profit on the capital invested than any other stock upon the farm. And yet we have to provide winter feed for about seven months out of the twelve of each year.

Sheep to be profitable require care, but it is a kind of care that is neither laborious or expensive. But there is one great evil in the way, in all regions where sheep have not been kept, and that is depredations by dogs. That evil can be remedied by a law taxing dogs, and making it legal to destroy any one found at large without his master. In this State dogs are taxed for the first one 50 cents, any additional one to the same person one dollar, if a bitch three dollars. And if the tax be not paid then, any person is at liberty to kill it in any place. Besides the owner is held responsible for any damage his dog commits. In this way, and with a free use of poison, dogs are not troublesome with us. The tax is kept as a fund to pay for sheep which are killed by dogs when the owner cannot be found, or is unknown.

It is a very great marvel why so many dogs are kept. In most instances they are of no use, while the expense of their support is equal to that of ten sheep. But I notice by the census of 1850, that there has been a gain of sheep

in your State in ten years of nearly fifty-seven thousand. The number in 1840 was 538,279, while in 1850 it was 595,249. This is a good sign, for although the gain is not large it still shows that there is a perceptible increase. It is a significant fact, and well worthy of notice that while sheep have decreased in nearly all of the old Northern States to the number of millions, they have increased in nearly every Southern State in quite perceptible numbers. The decrease in the North is owing to the denseness of population, and the diverting of a greater breadth of land to making butter and cheese, and growing of grain. The multiplication of railroads has made grain growing, and the dairy more profitable than wool growing, unless the growing of mutton be made superior to the wool. But increased attention seems to be paid to the subject South and West, and from these regions must ultimately come the greatest amount of wool produced in the Union.

The gross receipts of a flock of sheep may be put down, if of the Merino blood, at not far from three dollars, depending upon the rate of the increase. With us now, a Merino sheep yields from 4 to 5 lbs. of washed wool, which is worth 38 cents per lb., and the lambs are worth from \$1.50 to \$2.50 each, for common male lambs that have been castrated. Say four pounds of wool at 38 cents is equal to \$1.52, and allow only \$1.50 for the lamb, and we get \$3.00 for the value of the annual product of the sheep per head.

I speak of the merino for my experience satisfies me that for wool growing it is superior to any other breed. But I would by no means advise any person to make a very large out lay upon that breed at first. The best way would be to select the best of the common breed of the country, which were acclimated, and use good merino rams. At the same time procure from ten to twenty full blood merino ewes, so as to gradually grow into a pure, or high grade flock.

There is no farmer who will not find his profits handsomely increased by keeping sheep, few or many, according to his circumstances.

Be sure to keep your successive numbers of this paper regularly filed, so that they may be bound hereafter.

For the Carolina Cultivator.

MR. EDITOR—DEAR SIR :

I was very glad, not long since, to see in the *Southern Cultivator*, a notice, stating that you had commenced the publication of a so much needed agricultural journal, for I do think such a work, was greatly needed in the Old North State. I hope it will be the means of turning many from the error of their ways. I was born and raised in North Carolina, until I was twenty-three years of age, and I never saw an agricultural work, until I removed to Georgia; and I have no doubt, but there are many farmers in North Carolina, at this time who are perfectly ignorant of any system of farming, but that of their own, and that consists of putting their grain in the ground without regard to any rule or regulation. Now, I don't mean to include the whole farming community, but some who have come under my own knowledge. I was raised a farmer, I am still a farmer, and I have gained more information from reading the *Southern Cultivator*, and *Soil of the South*, than I ever did from experience or observation; and I am convinced of the fact, that an agricultural work, will make a good farmer, a better farmer. I therefore wish you abundant success in your efforts to improve the agriculture in the Old North State.

C. B. STRICKLAND.

Cool Spring, Georgia, April, 6, 1855.

Wealth of the Amazon.

One of the most interesting and valuable books recently issued, is the Report of Lieutenant Herndon on his exploration of the river Amazon. We extract the following passage, which in a small compass, furnishes a very full statement of the resources of that wonderful region, and one which the readers of an agricultural journal may find both entertaining and instructive. In relation to the Valley of the Amazon, Lieutenant Herndon says.—(Eds. CULT.

Its capacities for trade and commerce are inconceivably great. Its industrial future is the most dazzling; and to the touch of steam, settlement, and cultivation, this rolling stream and its magnificent water-shed would start up into a display of industrial results that would

indicate the Valley of the Amazon as one of the most enchanting regions on the face of the earth.

From its mountains you may dig silver, iron, coal, copper, quicksilver, zinc, and tin; from the sands of its tributaries you may wash gold, diamonds, and precious stones; from its forests you may gather drugs of virtues the most rare, spices of aroma the most exquisite, gums and resins of the most varied and useful properties, dyes of hues the most brilliant, with cabinet and building-woods of the finest polish and most enduring texture.

Its climate is an everlasting summer, and its harvest perennial. I translate from a book of travels in these countries, by Count Castelnau, (received since my return to the United States,) an account of the capacities of some of the southern portions of this vast water-shed:

"The productions of the country are exceedingly various. The sugar-cane, of which the crop is gathered at the end of eight months from time of planting, forms the chief source of the wealth of the province of *Cercado*.

"Coffee is cultivated also with success in this province, and in that of *Chiquitos* yields its fruit two years after having been planted, and requires scarcely any attention. Cocoa, recently introduced into these two provinces, gives its fruit at the end of three or four years at most. The tamarind, which thrives in the same localities, produces its harvest in five years. Cotton gives annual crops; there are two varieties—the one white, the other yellow. Tobacco grows, so to speak, without cultivation in the province of *Valle Grande*, where it forms the principal article of commerce. Indigo, of which there are three cultivated kinds and one wild, is equally abundant. Maize yields at the end of three months all the year round; it is also cultivated in the province of *Cercado*. The cassave produces in eight months after planting; there are two kinds of it—one sweet, and the other bitter; the first can replace the potato, and even bread; the second is only good for starch. There is an enormous amount of kinds or varieties of bananas, which produce in the year from seed; they are specially cultivated in the province of *Cercado*. Two kinds of rice—one white, the other colored—are cultivated in the two provinces of *Cercado* and *Chiquitos*. They produce every five or six months; they say it is found wild in the region of *Chiquitos*.

"The grape, which grows well everywhere, and especially in the province of *Cordilleras*, where it was cultivated in the Missions up to the time of the Independence, is nevertheless made no article of profit. It will some day, perhaps, form one of the principal sources of wealth of this country. Wheat, barley, and the potato might be cultivated with advantage in the provinces of *Chiquitos* and *Cordilleras*; but till now results have been obtained only in that of *Valle Grande*. The cultivation of cocoa has commenced in the province of *Cercado*, and it is also found in a wild state, as well as the Peruvian bark, on the mountains of *Samaripata*. As we have already said, fruits abound in this region. They cultivate there principally oranges, lemons, citrons, figs, papaws, pomegranates, melons, watermelons, *chirimoyas*, (which the Brazilians call *fruto de conde*,) pine apples, &c. The last of these fruits grew wild, and in great abundance, in the woods of *Chiquitos*. We met it, particularly the evening of our arrival, at *Santa Ana*. Its taste is excellent; but it leaves in the mouth such a burning sensation that I bitterly repented having tasted it. They cultivate in sufficient abundance, in the province, jalap, Peruvian bark, sarsaparilla, vanilla, rocou, copahu, ipecacuanha, copal, &c. Woods for dyeing, cabinet making, and building, abound; and the people of the country collect carefully a multitude of gums, roots, and barks, to which they attribute medicinal virtues the most varied. In many points in the departments, and especially in the provinces of *Valle Grande* and *Cordilleras*, iron is found, and traces of quicksilver.—Gold is found in the province of *Cercado*, near the village *San Xavier*. The Jesuits wrought mines of silver in the mountains of *Colehis*.—Don Sebastian Rancas, while governor of *Chiquitos*, announced to the government that diamonds, of very fine water, had been found in the streams in the environs of *Santo Corazon*."

The Ravages of Insects.

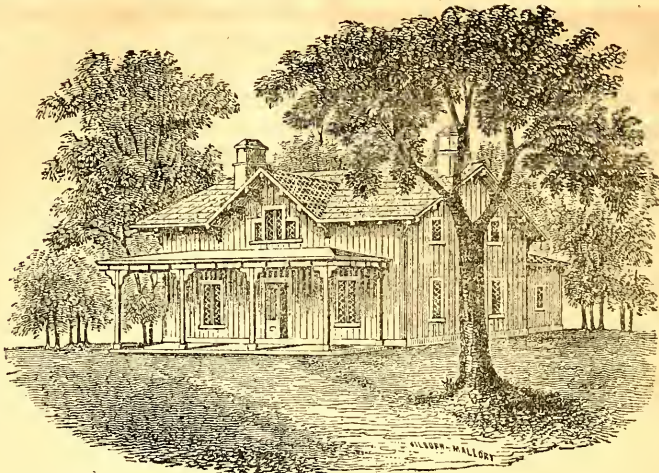
Such insects as Hessian and wheat flies, curculios, weevils, army and ball worms, annually destroy crops to the amount of twenty millions of dollars. If a pirate on the high seas, or an Indian savage on the land, injures the property of a citizen to the amount of a few dollars, millions are expended, if need be, to punish

the offender. This is right. But when public enemies of a different name do a thousand times more injury to a whole country, are its citizens under any necessary restraint which forbids their making a common effort to protect their property from insect devastators?—Parasitic plants, such as rust on wheat, and many fungi, as well as injurious insects, are on the increase. To attempt to explain the reasons why this is so, would lead at once into questions in animal and vegetable physiology, out of place in this brief synopsis of such rural topics as are believed to be of general interest. It may not be amiss to remark, however, that many boys are apparently educated to kill all small birds that subsist mostly on insects, so soon as these youngsters are large enough to shoulder a gun.

Government can do much to check the ravages of insects, by collecting and diffusing useful information as to their habits, times of transformation and the best means of destroying or avoiding them. If farmers fold their arms, and say that nothing can be done by the science of entomology, nor by any other means, what but an increase of the evil is to be expected? Not to try to escape the infliction, is treating one's enemies with unmanly forbearance, and evinces a belief in fatalism worthy a disciple of Mahomet.—*Patent office Report.*

NEWLY INVENTED HORSE-SHOE.—A patent has recently been granted to a mechanic of Philadelphia, for an improvement in the method of fastening horse-shoes. The invention consists in the construction of inclined flanges or lips, rising from the front and sides of the shoe, corresponding in form with the parts of the hoof against which they are made to bear, when fitted. One of the side flanges is made separate, and fastened by sliding into a recess in the side of the shoe, and secured by means of a screw, thus entirely dispensing with the use of nails, and avoiding any liability to injury by pricking.

AGRICULTURAL PREMIUM.—The board of managers of the Western Virginia Agricultural Society have awarded a premium to Daniel Steenrod, of Ohio county, for the "best three acres of corn." Mr. S. was the only competitor.—His land produced 104 bushels to the acre.



A BRACKETED COTTAGE, WITH VERANDA.

The importance of providing comfortable residences is, we fear, too little appreciated in the Southern States, particularly in the country. It seems to be the general opinion that a house which is ornamental, as well as comfortably arranged, costs much more than a house after the usual style, put up without reference to taste or convenience. This is a mistake.—A neat and pleasant country residence may be erected at about the same cost as the plain unsightly house, while the comfort to be derived from it is beyond calculation.

It is our design, from time to time, to insert in the "*Cultivator*" designs and plans of country residences, cottages, &c., from which we hope our readers may derive some valuable hints, if they do not adopt the plans in detail. The design given above, it will be perceived, is in its interior arrangement, more particularly adapted to the North, where the kitchen is always in the main building. In this plan the room on the right, might be made the dining and common sitting room of the family, and the other rooms appropriated as circumstances may require. The description of the building is taken from "Downing's Country Residences," published by D. Appleton & Co., New York.—(EDS. CAR. CULTIVATOR.)

A pleasing, symmetrical form, some picturesqueness of roof, united to considerable simplicity of construction, and an expression of more domestic enjoyment than cottages of this size usually exhibit, are the characteristics of this design.

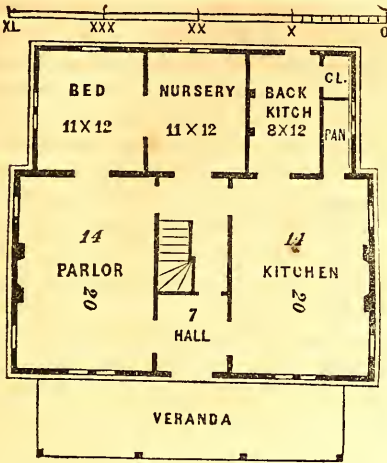
ACCOMMODATION.—The interior of this cottage, gives a neat and pretty parlor, of 14 by 20 feet. The principle here, is to get as large an amount of convenience and comfort in everyday life as possible, and leave the rest to take the secondary rank.

Hence the kitchen, bed-room, nursery, and back-kitchen, the 'scene of a good deal of the daily life of the mistress of this cottage, are all on the first floor, and all close together. The last three of these are economically obtained by putting them in a one-story *wing* added to the rear of the cottage; and though the rooms thus afforded are not large, yet they are large enough when they are to be kept in order with very little "help."

The kitchen, in this plan, is properly the living and eating room of the family, and in order that it may always be kept neatly, there is a small back-kitchen adjoining, with its separate flue for a small range or cooking-stove, so that all the rougher work can be done there, which makes the larger kitchen, usually, a pleasant family dining-room.

There is a partition across the hall, just by the stairs, which is intended to serve as the extreme limits of nursery excursions, on all occasions when decorum in the parlor is the order of the day. The door here, as well as the front door, should have the two uppermost panels glazed, so as to light both parts of the hall when they are closed.

The second floor of this cottage is divided so as to give the utmost amount of room—five



PRINCIPAL FLOOR.

bed-rooms in all. A more simple mode would be to repeat the form of the lower hall, and divide each of the two large rooms into two bed-rooms. This would give four bed-rooms, each 9 1-2 feet.

CONSTRUCTION.—The veranda of this cottage is 8 feet wide and 32 feet long. It is one of the most pleasing forms of bracketed piazza, and is built with but little cost. The whole is of wood; the rafter, being worked fair, and beaded at the angles, as well as the narrow sheathing-boards, which cover them, and form the under side of the roof. Thus, no plaster ceiling is required. The roof itself is usually made of tin, galvanized iron, or shingles.

The materials of this cottage are outside weather-boarding, put on in the vertical mode, and filled-in with brick, so as to make a warm and dry house. There would be a cellar under the main building, but not under the back wing, unless some extra space is required. The entrance to this cellar from the interior, would be by a flight of steps under the stairs in the hall, and from the exterior by a cellar door and flight of stone steps on the kitchen side of the house. The windows would all have outside, Venetian blind shutters.

The first story is 10 feet, the second, 9 1-2 feet high.

ESTIMATE.—The whole cost of this cottage is estimated at \$1,356. Of course, in portions of the country where timber is more abundant, the cost would be from 15 to 20 per cent. less.

Burning Mud for Coal--A New Idea.

IN company with a number of gentlemen, we, on Wednesday last, visited the room of Dr. Thomas Hooker, over the "Gem," on Royal street, for the purpose of seeing mud put to a more practical use than be-spattering us at every stride we take through the streets. The idea now is, to burn it in place of coal! Nor is it a fiction, but a fixed fact. Dr. Hooker has a chemical preparation which he mixes with mud, as a bricklayer would mix lime with sand, and, after becoming dry, it makes a most excellent coal!—coal that can be made and sold in this market for thirty cents per barrel, if manufactured by machinery.

We should not have believed this, had we not seen it burn ourselves. It lights easily; there is no offensive smell emitted; but little smoke, and but very little dust or cinders. What little cinders are left, are good for cleaning silver, brass or other similar metals; and the ashes make a tolerable sand-paper, and are also good for scrubbing floors, &c. The patentee also assures us, that it will not only burn well in grates (where we saw it burning)—but in stoves, furnaces for smelting, and for making steam. In fact it can be put to all the practical uses of wood or coal, except for the purpose of generating gas. Of one thing we are satisfied, the mud burns, emits an excellent heat, and makes a cheerful fire. Whether the patentee can do all he says, remains to be seen. —*New Orleans Exponent.*

NUMBER OF SEEDS IN GIVEN WEIGHTS.—Mr. Melvin stated in a late discussion at an English Farmers' Club, that after several trials he had found that—

1 lb. of red clover of good quality gives, per acre to each superficial foot,	6 1-4 seeds
1 " yellow clover, (<i>medicago lupulino</i>)	6
1 " white clover,	16
1 " rye grass,	5

But as a large number of the seeds sown do not vegetate, and many of the plants which come up die, it is necessary to sow much larger quantities than are specified; and Mr. M. recommends for an acre 8 lbs. red clover, 2 lbs. white do., 2 lbs. yellow do., with one bushel of rye grass, which by his computation affords 100 seeds rye grass, 50 of red clover, 32 white, and 12 yellow clover, per superficial foot. In this country, a good substitute for the rye grass would be the same quantity of red top per acre.

Pruning the Grape.

Our people are beginning to appreciate the value of the grape, both as an article of food, and as affording a pure and wholesome tonic for the sick and infirm. As an ornament, also, in the grounds about the house, it is scarcely excelled by any of the plants which are sufficiently hardy for our climate. There is great uncertainty in the mind of many persons as to how and when the grape vine should be pruned, and finding an excellent article in the *Country Gentleman* on the subject, we have incurred the expense of engraving the cuts annexed, in order to give practical illustrations of the mode of pruning and training. These, with the explanations, will make the whole so plain, that all may cultivate the grape with a certainty of success.



Fig. 1.—Portion of a grape vine in bearing, representing the bearing branches, from the sides of a last year's vine.

A correspondent at Southeast, N. Y., requests a chapter on the pruning of the grape. He adds, "I do not trim on the renewal system, and I find that this year's shoots that are to be next year's bearers, if kept without any trimming, fling out such a profusion of side-shoots that they become altogether too thick; and by trimming them off, the bud which should be left to grow next spring, will grow this summer and produce a crop of grapes. I had grapes on such vines this year that were about full grown when frost came. I cannot

keep the vines thin enough without taking off the side-shoots. I also wish to ask whether in grafting the vine, if we have little vines up, shall we graft them, and then set them out as we do root-grafted apple trees, or must they be cut off below the surface and be grafted when they are growing?"

[Our experience suggests that, if *taken up* and whip grafted, and then planted out, they are sure to succeed; cover the scion with earth up to the topmost bud.—ED. FARMER.]

In compliance with the request of our correspondent, and in reply to frequent inquiries, we furnish a few hints on pruning the grape, which we shall endeavor to make sufficiently plain by reference to figures, that inexperienced cultivators may easily understand them. A well-pruned vine will not only produce *earlier* fruit, but it will be larger, and incomparably superior than on one left to straggle without care.

There are two leading principles that should be always observed in pruning the grape, whatever may be the particular mode adopted. The first is, that the vine *always bears the fruit on the present year's shoots*, which have sprung from buds on the previous year's growth, (Fig. 1.) That the full growth and perfect ripening of the *fruit* depends wholly on the healthy, well developed *leaves*, which supply food to the forming berries, and hence the growth must not be allowed to become so thick that the leaves cannot properly develop themselves, nor should the vines be trimmed so closely that there shall not be leaves enough for the perfection of the fruit. These two facts must be always borne in mind by those who would raise the best grapes. These being understood, we now proceed to the details of pruning.

FIRST YEAR.—When a vine is first procured from the nursery in spring, it is usually furnished with several irregular shoots of the previous summer's growth, resembling Fig. 2. These should be all closely pruned to the older wood, leaving only the strongest, and this should be cut back so as to leave but two or three buds, (Fig. 3.) These buds will grow, and when only a few inches in length, the strongest shoot must be selected, and the oth-

ers rubbed off. This single shoot is allowed to grow till about the first of autumn. After this period, the new leaves and wood that are formed, cannot mature perfectly, and their growth will be in some degree at the expense of the matter forming in the previous portion of the shoot. Its growth should be therefore stopped by pinching off the end. This will assist in maturing and strengthening the vine.

Any *side-shoots* that appear during the summer, or any smaller shoots that happen to spring up from the stump, should be kept rubbed off as fast as they appear, as they withdraw and divide the nourishment received from the roots.



Fig. 2.—Vine as obtained from nursery, with straggling shoots.



Fig. 3.—The same pruned when set out.

SECOND YEAR.—The single strong shoot made the first year, (Fig. 4.) should be cut down to three or four buds, only *two* shoots from which should be allowed to grow, the others being rubbed off, and the lateral shoots, should any appear, being removed as already described. The autumnal shortening of the two shoots as above stated is also necessary. The judgment



Fig. 4.—Growth at end of first summer from setting out.



Fig. 5.—Growth at end of second summer from setting out.

of the cultivator will teach him, that if the transplanted vine is small or weak the first year, and makes but a few feet of growth, the same first year's process must be gone over again the second year, until the vine becomes strong enough to send up a shoot at least some nine or ten feet in length, when the "second year's" operation may be commenced upon it. Any fruit which sets should be removed, as the vine is not yet strong enough to bear and support a vigorous growth at the same time.

THIRD YEAR.—The two shoots made during

the second year, (Fig. 5,) are now extended each way horizontally, and fastened to the newly erected trellis. This may be done at the end of the second year, or early in the spring of the third. These horizontal branches, termed *arms*, are to be cut back at the same time, so as to leave two good buds on each, so that four shoots, two on each side, may spring up from them; the same care as formerly being observed to remove suckers or supernumerary shoots and side branches, and to give the autumn shortening. None of the fruit bunches should be allowed to remain.—

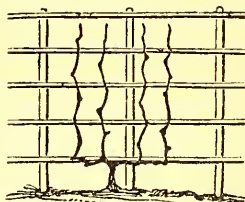


Fig. 6.—Growth at end of third summer from sitting out.

The four shoots, as they advance in growth, should be tied to the trellis, in the position that the figure represents.

FOURTH YEAR.—Two shoots or canes are suffered to remain in their position upon the trellis, merely cutting them down to three or four feet. They will throw out from each bud side-shoots, which are the fruit-bearers, and on each of these spurs one or two bunches of grapes may be allowed to remain and ripen; the ends of these spurs or side-shoots being pinched off, as shown at c, Fig. 1. All other bunches should be rubbed off as soon as they form. The other two or outer shoots should, early in the same spring, (or late the previous autumn,) be laid down horizontally so as to form an extension or continuation of the *arms* and at the same time be shortened to within about two feet of the ends of the previous arms. Two buds should be allowed to grow on each of these horizontal portions, one of which is to be trained upon the trellis for another bearing branch, and the other to serve for a continuation of the arms, as before, no bunches being allowed to grow on them. In this way, two new bearing shoots are added yearly, until the entire space intended for the vine on the trellis is filled.

We have already remarked, at the beginning of the previous paragraph, that the two upright

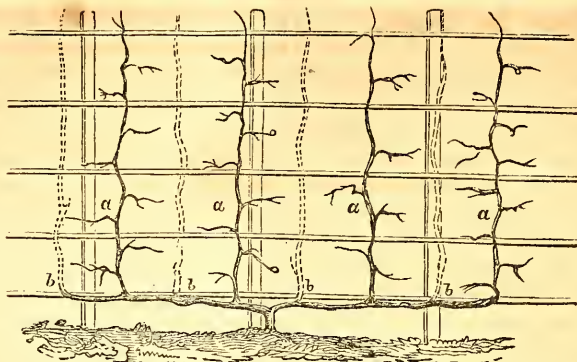


Fig. 7.—A full grown grape vine, trained on the alternate or renewal system—the dark vines, the present year's bearers—the dotted ones, growing this year, for bearing next.

shoots are cut down to three or four feet. A bud should be allowed to grow at their upper ends, from which all bunches are to be removed, so that they may serve to extend their length upwards, till the full height of the trellis is attained.

There are two modes of treating vines trained in this way. One is what is termed *spur-pruning*, and the other the *long-cane* or *renewal* system. Theoretically speaking, there is but little difference between them, but they are quite different in practice. We have already remarked that the bunches are borne on the present season's shoots. In *spur-pruning*, these shoots are thrown out yearly from the sides of a *permanent* upright shoot, and are cut back yearly, for new ones to spring out from the buds left at their base in pruning.

In the *long-cane* or *renewal* system, every alternate stem is cut wholly down to the horizontal arm; so that, while last year's upright shoot is furnishing a crop of grapes this year, —this year's shoot is growing (free from all bunches,) for a similar crop for next year. No shoot, therefore, remains above the arms longer than two years.

Spur-pruning is best adapted to slowly growing sorts, (chiefly exotics) which cannot produce a full length branch in one year. The renewal system is best for the most vigorous American varieties, which will grow fifteen or twenty feet in a year. Fig. 7 exhibits distinctly a vine trained to a trellis, and treated on the renewal system, the dark shoots being the present season's bearers, and the dotted lines showing the growth of the canes for bearers next year, while new ones are growing in the places of this year's bearers.

Summer pruning, which consists in the removal of all supernumerary shoots and bunches as fast as they appear, and in pinching off the ends of bearing shoots, after enough leaves have formed, is of great consequence. Vines left to themselves, even after a thorough spring pruning, soon have such a profusion of leaves and branches, that none can perfectly develop themselves, and the fruit is consequently small, the bunches meagre, and the ripening late. The summer pinching of the ends of the bearing shoots should be cautiously done, and not before the grapes are about half grown; four or five leaves, at least, should be left on every one, above the last bunch, and never more than two bunches be allowed on each bearing fruit.

The old vine should never be allowed to rise a foot from the ground—the lower it is kept, the easier the vine will be managed, and the freer it may be kept from suckers. Some of the best cultivators bury the old stump beneath the soil.

The proceeding will, we hope, fully answer all the inquiries of our correspondent, and prove useful to beginners generally. We are not aware of any experiments in root-grafting the grape out of ground—its success can only be proved by actual trial.—*N. E. Farmer.*

CUTTING BUSHES.—Are there any bushes growing along your fences? If there are, recollect they are so many evidences of slovenly farming, and should be removed. Therefore, seize every spare moment to have them cut down below the surface of the earth, and on the crown of every bush thus removed, throw a handful of salt. Two or three such operations will insure their destruction.

Boiled Food for Cattle.

The most economical method of feeding stock is a subject in which every farmer should feel a deep interest. The good qualities of many kinds of food given to domestic animals, are susceptible of improvement in various ways, but perhaps the very best is that of steaming or boiling it. It is well known that boiling greatly facilitates the mechanical divisions of nearly every kind of food, and that to this fact is attributable its superiority over the raw material. Very many of the roots used for feeding cattle, are in their natural or raw state at least partially indigestible, and consequently less valuable than when boiled, as the minute particles of which they are composed are separated by the process of boiling, and thus a larger surface is presented to the action of the juices of the stomach. It is also asserted by the best authorities that the nutritive powers of the various kinds of food are much augmented being subjected to such high temperature, while immersed in water. Besides this, boiled or steamed food is generally better relished by cattle than that which is not. Potatoes for instance which are frequently refused in their raw or natural state, and are not in that form considered profitable food, appear to acquire new properties when boiled, and are eaten with much relish and decided advantage. The same results follow in the case of almost every other of the roots usually fed to cattle, as well as to various kinds of grain, hay, etc. As corroborative of the correctness of these views, let the farmer refer to his own every day experience in the use of cooked food, and he will find that any kind of well boiled grain, eaten warm, gains immensely in nutritive value over the same quantity when eaten without this preparation. Boiling or steaming effects the most important changes both in the chemical and mechanical qualities of food, rendering many substances palatable and nutritious, which when eaten raw are both indigestible and unwholesome. The advantages of thorough mastication are well known. It is indispensable to rapid and complete digestion may be properly regarded as the farmer in feeding his stock.

It is well known that in the case of colts, there is frequently difficulty of dentition, causing feverishness, loss of appetite, and diarrhoea. When such is the case, and the gums of the

animal become either inflamed or ulcerated, mastication is seriously and ruinously interfered with, digestion is of course but imperfectly performed, and the diseases above named are the result.

Boiled food would obviate this difficulty to a very great extent. The same reasoning will apply with equal cogency to all ages, but especially to those considerably advanced, whose teeth have suffered from natural decay or accidental causes. For, if the food of which an animal partakes is thoroughly digested, it is more readily assimilated, and consequently; much more efficacious in promoting its health and vigor.

We have the very best authority for asserting that as a general thing, food cannot be presented to stock in any form so profitable, so easily masticated, so readily digested and equally nutritious, as when steamed or boiled. The subject, therefore, becomes one of immense importance, and the reflecting and observant farmer cannot fail to regard it in that light.—

Progressive Farmer.

Cattle Feed.

Hay is the food for cattle during winter. If they can get good hay enough, during the cold season, they do very well. It is not always that the farmer has a sufficiency of this for his stock, and hence it is useful to know the comparative value of other articles which may be used as substitutes for it. It is also the more agreeable, and we think more profitable, to mingle other articles with hay. We have prepared from various sources the following table.

Taking good hay as the standard, 100 lbs. of hay equal 276 lbs. carrots; 300 lbs. ruta бага; 317 lbs. mangold wurtzel; 201 lbs. potatoes; 494 lbs. common turnips.

From this it will be seen how much fodder you get of each, per acre, compared with good hay.

In regard to straw, experiments have established the following estimate as very near the truth. 100 lbs. of hay equal to 272 lbs. new wheat straw; 166 lbs. barley straw; 169 lbs. pea straw; 94 lbs. clover hay.—*Maine Farmer.*

Never plow in bad weather, or when the ground is very wet.

BEDDING HORSES.—See that your horses are supplied with clean, fresh bedding every night. After laboring hard, all day, on the road, or in the fields, this will be extremely grateful to their weary limbs. Give them a hard floor to stand on.—*Germantown Telegraph.*

Do not begin farming by building an expensive house, nor erecting a spacious barn, till you have something to store in it.

CRANBERRIES AND ERYSIPELAS.—The Niles (Michigan) *Republic* says: "A lady visited our family a few days since, and stated that her daughter had the erysipelas very bad. We called to mind the remedy recommended by a New Haven editor. On returning home in the evening she found the disease spreading rapidly—it had assumed a frightful appearance. She immediately applied a poultice made of cranberries, which seemed to arrest it at once, and the second poultice effected a complete cure."

TABLE OF CONTENTS.

	Page.
Action of Lime,	82
Agricultural College,	82
Agricultural Premium,	85
Boiled Food for Cattle,	91
Bedding Horses,	92
Buff Shanghai Hen,	79
Best Vegetable for Milch Cows,	77
Bones,	71
Bee Moth,	73
Breeding Horses,	87
Burning Mud for Coal,	86
Cottage Residence,	65
Cultivation of Oats,	91
Cattle Feed,	77
Cut all your Hay, &c.,	90
Cutting Bushes,	92
Cranberries and Erysipelas,	92
Experiments with Boiled Potatoes,	79
Fresh Eggs,	73
France and England,	74
Good Horses Wanted,	74
How to Feed Stock Economically,	77
How much should a Cow Eat?	69
How to Make Guano,	60
Keeping Poultry in Large Numbers,	84
Letter from C. B. Strickland,	77
Milch Cows,	85
Newly Invented Horse Shoe,	82
Northern Hay and Butter,	82
Need of an Ag. So. in Statesville,	82
New Sugar Plant,	82
Number of Seed in Given Weights,	87
Profit of Cows,	72
Points of Cattle,	73
Pruning the Grape,	83
Reclaiming Swamp Lands,	70
Reasons for Deep Plowing,	70
Sympathy with Stock,	77
Sheep Husbandry Profitable,	77
Systematic Horse Breeding,	78
Scurvy Pigs,	79

Sowing Grass Seed in Autumn,	68
Science and Practice,	80
Sorrel,	67
Selection of Breeding Animals,	68
Standard for Saxony Sheep,	72
Sandy Soils,	73
Sore Mouth in Sheep,	73
Sale of Stock at Marshfield,	82
To Remove Stumps,	67
The Wheat Crop,	73
The Fruit Prospects in New England,	73
The Grouping of Roses,	75
The Ravages of Insects,	85
Thrift,	81
Treatment of Grapes,	87
Wealth of the Amazon,	84
Wool Growing South,	83

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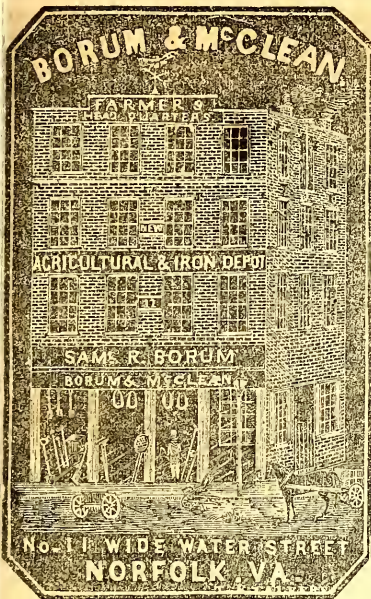
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NORFOLK, VIRGINIA,

ARE NOW PREPARED TO FILL ORDERS FOR HUSSEY'S, Burrall's, or Atkin's Self-raking Reapers, at Factory prices, with or without front wheels, or platform for side delivery. We have issued a Catalogue containing cuts of these three kinds, with description and prices, warrantee, &c. and we shall be pleased to mail a copy to all applicants.

HORSE POWERS. The best kinds in this country, of Lever Machines for two, four or six horses, also

RAILWAY HORSE POWERS, for one and two horses, best make.

THRASHING MACHINES, with wrought iron cylinders, teeth fitting in with screw and tap, at \$45 to \$65 each. Also cast iron Cylinder Thrashers, teeth fit in, in like manner, and either kind warranted to perform well.

MACHINE BELTING from one to eight inches wide, constantly on hand, of best quality, stretched and oak tanned, at manufacturing prices. Wider sizes furnished at short notice.

GRAIN CRADLES, of "Grant's patent," warranted the lightest, strongest and easiest working Cradle in the world, with five and six fingers at \$5 and \$5 25 each, the fingers braced to the sneath with strong wire and by means of thumb screws can be set in a minutes time, and remain perfectly solid and stationary, has no wedge, to fall out and be lost, thereby losing time to make new ones.

GRASS BLADES, and Sneaths of various kinds.

PLOWS.--Three thousand constantly on hand of seventy-five different sizes and patterns to suit all kinds of soil, embracing Sod and Sub-soil, Deep Stubble, two and three furrowed, Gang, Side Hill, Double Mould, Sub-Soil, and Cultivating, Plows of best finish.

CULTIVATORS, with cast, wrought and steel hoes of several varieties, for Corn, Cotton and Tobacco.

HARROW.--Expanding, Hinge, Double Scotch, "Geddes'" Folding, Stationary, Square, &c., made light or heavy, of any dimensions.

STRAW CUTTERS.--Raw Hide, Cylinder Cutters, of five sizes, from \$7 50 to \$20 each. "Smith's" Virginia Cutter, \$10 each. "Sinclair's," Screw Propeller, \$23 to \$30 each. "Daniel's" patent Shuck Cutter, \$25 each.

Our Descriptive Catalogues, giving full particulars, with cuts, &c., will be mailed upon application.

MONTGOMERY'S, Bambooroughs, Sinclair's, Clintons, and Grant's Fanning Mills at \$13 to \$35 each.

IRON DEPARTMENT.

150 tons English, Swedes and American Iron, all sizes.

20 tons Hoop and Band Iron, $\frac{3}{4}$ to 4 inches wide.

20 tons Oval, half Oval and half round Iron.

200 sets Coach and Buggy Axles.

300 pair do do Springs.

250 kegs Nails, 3 to 40d., cut and wrought.

50 dozen Files and Rasps.

50 Smith's Bellows, all sizes.

1500 pounds Cast steel Hammers.

70 American Star Anvils.

50 Vices, for Wood and Iron Work.

Stocks and Dies, Bench screws, &c., for sale on the best terms.

DEBURG'S Superior Phosphate of Lime, in barrels, warranted a pure article at \$48 per ton.

All of the above goods will be sold to responsible Traders and Farmers, on accommodating terms. We are now engaged in manufacturing Farming Implements, and guarantee to furnish a neat, and substantial articles at as low prices as can be bought at in any market. Orders filled promptly.

BORUM & M'CLEAN,
Norfolk, Va.

1855

1855

THE CAROLINA CULTIVATOR.

A MONTHLY.
AGRICULTURAL JOURNAL

PUBLISHED IN RALEIGH, N. C.

Farmers of the South, you have now an opportunity to secure for yourselves and families a monthly repository of the most useful information on all subjects connected with the practical management of the farm and the household, and a convenient vehicle for your thoughts and suggestions on the same subjects which you may desire to communicate to others. It is our design to fill the "Carolina Cultivator" with a variety of short, pointed, and useful selections, adapted to the seasons, culled from a large number of valuable exchanges; to invite contributions from every quarter, wherever experience may have acquired a new lesson in the art of cultivation or domestic industry; and in our editorial columns to condense such important additions to our stock of recent information as cannot be otherwise compressed into our limited pages. We will also present our readers with all the more important items of intelligence connected with the general advancement of agricultural knowledge, and endeavor in every proper way to stimulate the industry and enterprise of our fellow citizens.

The publisher of the "Carolina Cultivator" will be aided in the *Editorial* department of the paper, by gentlemen fully competent to make it one of the best Agricultural Papers in the country, and also by several able members of the State Agricultural Society, at whose earnest solicitation the work has been undertaken.

TERMS.

1 Copy in advance,	-	-	-	-	\$1 00
6 Copies " "	-	-	-	-	5 00
10 " " "	-	-	-	-	8 00
13 " " "	-	-	-	-	10 00
20 " " "	-	-	-	-	15 00

PREMIUMS.

The undersigned will pay the following PREMIUMS on subscriptions to the "CAROLINA CULTIVATOR" for volume first commencing with March 1855:

FIFTY DOLLARS,

IN CASH, to the person who shall procure the LARGEST NUMBER OF SUBSCRIBERS in any County or District in the United States. The list to be not less than two hundred subscribers at the regular price.

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A correct account of the subscribers sent by each person will be kept and the Premiums will be announced in the SEPTEMBER NUMBER.

Specimen numbers and Prospectus sent to all applicants. Subscription money, if registered, may be mailed at our risk. All letters, &c., should be addressed to

WM. D. COOKE,
Raleigh, N. C.



THE CAROLINA CULTIVATOR.

Dedicated to Agriculture, Horticulture, and the Mechanic Arts.

VOL. 1.

RALEIGH, N. C., MAY, 1855.

NO. 3. EXTRA.

WILLIAM D. COOKE, PUBLISHER.

PREMIUM LIST

OF THE

Third Annual Fair of the

STATE AGRICULTURAL SOCIETY.

TO BE HELD, OCTOBER 16, 17, 18, and 19, 1855.

BRANCH 1.—Live Stock. FIRST DIVISION.

First Class—Thoroughbred.

1	For the best Stallion over four y'rs old,	\$25	4	" 2nd best Brood Mare, over 4 yrs old,	5
2	" 2nd " do. "	15	5	" " Stallion over 2 & under 4	
3	" the " Brood Mare "	15	6	" years old,	10
4	" 2d " do " "	10	7	" " Mare " "	10
5	" " Stallion over 2 & under 4 y'rs	10	8	" " Saddle-Horse, mare or geld-	
6	" old,	10	9	" ing,	10
7	" Mare " 2 " 4 " "	10	10	" 2nd " do do do	5
			11	" " pr. matched Carriage-Horses,	
			12	" raised in the State,	20
			13	" 2nd " do do	10
			14	" " Single-Harness Horse, raised	
			15	" in the State,	10
			16	" do do	5

In this class purity of blood being the highest point of distinction, a well authenticated pedigree must, in every case, accompany each animal put on exhibition to compete for any of the above prizes.

In this class, individual excellence in form, action and disposition, will be regarded as chief points of merit.

Second Class.—Quick Draught and Saddle Horses.

1	For the best Stallion over 4 years old.	\$20
2	" 2nd " do " "	10
3	" " Brood-Mare,	10

Third Class—Heavy Draught Horses.

1	For the best Stallion over 4 years old,	\$20
2	" 2nd " do "	10
3	" " Brood-Mare over 4 years old,	15
4	" 2nd " do "	10

- 5 For best Stallion over 2 & under 4 yrs old, 10
 6 " " Mare " 2 " 4 10
 7 " " pair heavy Draught Horses, raised in the State, 10

In this class, form, size, and docility, will be regarded as chief excellencies.

JACKS AND JENNETTS.

IMPORTED.

- 1 For the best Jack, with ap. v'd certificates, \$20
 2 " " Jennette, " " 10

RAISED IN THE STATE.

- 1 " " and largest Jack, 20
 2 " " Jennette, 10

MULES.

- 1 For best pr. of Mules (raised in the State) 10
 2 " " single Mule " " 5

SECOND DIVISION.

CATTLE.

First Class—Short Horns and Durhams.

- 1 For the best Bull over 3 years old, \$25
 2 " " do " 2 " and under 3, 15
 3 " " do " 1 " and under 2, 5
 4 " " Calf, 3
 5 " " Cow over 3 years old, 10
 6 " " do " 2 " and under 3, 5
 7 " " Heifer Calf, 3

The same classification adopted, and, the same premiums offered for Devons.

AYRSHIRES.

- 1 For the best Bull, \$15
 2 " " Cow, 10

ALDERNEYS.

- 1 For the best Bull, \$15
 2 " " Cow, 10

HEREFORDS.

- 1 For the best Bull, \$15
 2 " " Cow, 10

GRADES OR MIXED BLOOD AND NATIVE CATTLE.

- 1 For the best Bull, \$15
 2 " " Cow, 10

IMPORTED CATTLE.

(Where the word imported is used, it is understood the animal must be brought from beyond the United States.)

- 1 For the best Bull, \$20
 2 " " Cow, 10

WORKING OXEN.

- 1 For the best pair Work Oxen, \$10

FAT CATTLE.

- 1 For the best lot of fat cattle, not less than 3, \$10
 2 For the best single fat ox or cow, 5
 3 " " spayed Heifer, 5

MILCH COWS.

- 1 Best Milch Cow, \$10
 2 2nd best, 5

THIRD DIVISION.

SHEEP.

First Class—Merino, Cotswold, and South-down.

- 1 For the best Buck, \$20
 2 " " " Pen of Ewes (not less than 3) 15
 3 " " " " " Lambs, " " " " 10

Second Class—Natives or Grades.

- 1 For the best Buck, \$10
 2 " " " Pen Ewes (not less than 3,) 10
 3 " " " " " Lambs, " " " " 5

GOATS.

- 1 For best pair of Cashmere Goats, \$10
 2 " " " " " Alpaccas, 10
 3 " " " " " Milking Goat, 5

FOURTH DIVISION.

SWINE.

First Class—Large Breed.

- 1 For the best Boar over 2 years old, \$3
 2 " " " Breeding Sow over 2 year old with not less than 4 Pigs, 5
 3 " " " lot of 6 Pigs under 10 months old 5
 This class includes Berkshires, Chesters, Woburns, Graziers, Bedford and Duchess County; and their grades, size, form, and fitness as pork hogs, will be the chief objects of attraction.

Second Class—Small Breed.

- 1 For the best Boar over 2 years old, \$5
 2 " " " Breeding Sow " 2 " and not less than 4 Pigs, 5
 3 " " " Boar or Sow under 2 years old, 5
 4 " " " lot of 6 Pigs under 10 mo's old, 6

In this class is included Suffolk, Neapolitan, Chinese, Guinea, Snap-Dragon, and their grades, and will be regarded chiefly for their fattening qualities.

Third Class—Natives.

- 1 For the best Boar over 2 years old, \$10
 2 " 2d " " " " " " 5
 3 " best Breeding Sow with 4 pigs, 10
 4 " 2d " " " " " " 5
 5 " best Boar or Sow, 5
 6 " 2d " " " " " " 3
 7 " " lot of 6 Pigs under 10 mo's old, 5
 8 " " lot of 10 fat hogs of any breed, 10
 9 " " Single fat hog (raised in the State,) 5

POULTRY.

- Best pair Shanghais, \$3
 " Dorkings, 3
 " Polands, 3
 " Brahmas, 3
 " Cochins, 3
 " Black Spanish, 3
 " Game, 3
 " Cross-Breed, 3
 " Wild Turkey, 3
 " Domestic " 3
 " China Geese, 3
 " Canada " 3
 " Common " 3
 " Musc'y Ducks 3
 " Rouen " 3
 " Aylesbury, 3

Best pair Pied Guinea Fowls,	\$ 3
" " White " "	3
" exhibition of Pigeons,	5
" and largest exhibition of Poultry by one exhibitor,	10

BRANCH SECOND,---Agriculture.

First Class---Field Crops---(In the State.)

To be awarded by the "Ex. Com." at a meeting to be held for that purpose in December next.

1 For best Crop of Wheat, not less than five acres, nor less than 40 bushels per acre,	\$20
2 For Second do do	10
3 Best crop of Indian corn not less than five acres, to be shelled and weighed between the 15th of Nov. and the 15th of Dec., not less than 100 bushels per acre,	20
4 Second best do do	10
5 Best crop of Barley, not less than one acre, nor less than 50 bushels per acre,	10
6 Best Crop of Rye, not less than one acre, nor less than 40 bushels per acre,	10
7 Best crop Oats, not less than one acre, nor less than 50 bushels per acre,	10
8 Best Crop of Buckwheat, and not less than one acre nor less than 30 bushels per acre,	10
9 For the best crop of Rice not less than — acres, nor less than — bushels per acre,	10
10 Best crop of Beans or Peas, not less than one acre, nor less than 25 bushels per acre,	10
11 Best crop of Cotton on not less than 4 acres,	20
12 Second best do do	10
13 Best crop of Pea Vine Hay, raised on 2 acres, one bale to be sent as a sample to the State Fair,	5
14 Best crop of Native Grass Hay raised on 2 acres, one bale sent as a sample,	5
15 Best crop of Foreign Grass Hay raised on 2 acres, one bale sent as a sample,	5
16 Best crop of Sweet Potatoes, not less than half of an acre,	5
17 Best crop of Irish Potatoes, not less than half an acre,	5
18 Best crop of Turnips raised per acre,	5
19 Best crop of Beets, not less than 1-2 an acre, 60 lbs. per bushel, nor less than 400 bushels per acre,	5
20 Best crop of Carrots, (with same conditions as for beets,)	5
21 Best crop of corn-fodder, not less than 1 acre, with an account of culture, preservation, &c.,	5
22 Best crop of Tobacco, not less than four acres,	10
23 Best half acre of Hops, with full account of cultivation and preservation,	5
24 Best ½ acre of Flax, with same account as last,	5
25 Best ½ " " Hemp, with do do	5

26 For best ¼ acre Clover Seed, do do	5
27 " " " Timothy Seed, do do	5
28 " " " Broom Corn, do do	5
29 " 5 " " Flax Seed, not less than 12 bushels per acre,	5
30 For the best average product, to the acre throughout the entire crop, of Wheat, Tobacco, Corn or Cotton,	10
31 For the best crop of Dora Corn, not less than 1 acre,	5

Statements to be made by competitors on Field Crops

1. The land must be measured by some competent person, who shall make affidavit of the accuracy of the measurement, and the quantity of ground.

2. The applicant shall make affidavit, according to the forms annexed, to the quantity of grain raised on the ground, entered on the premium list, which affidavit must accompany the application for premiums, together with a sample of the grain.

3. The principal object of the Society being to promote profitable cultivation, it does not offer premiums for crops produced by extravagant expenditure; therefore, a detailed certified, account of the expense of cultivation, must be made; the expense of labor and manures stated; and the kind of manure used.

4. The kind and condition of soil; the quantity and kind of seed used. The time and mode of planting or sowing, stated.

Samples of grain and vegetables produced, to be exhibited at the State Fair, where practicable, and also to be sent to the Ex. Com. at Raleigh prior to the meeting of the Committee in December.

5. The grain must either be weighed or measured in a legal half bushel, corn to be measured in the ear, and an average specimen of not less than 20 bushels of ears shelled, cleaned, and weighed or measured, as above, after the 15th of Nov., and the number of bushels thus estimated, stated in the affidavit.

FORMS OF AFFIDAVIT.

— County, S. S. — A. B., being duly sworn, says he accurately measured the land upon which C. D. raised a crop of — the past season, and the quantity of land is — acres and no more. [Signed] A. B.

Sworn to before me, this — day of —, 185 .

— County, S. S. — C. D., being sworn, says he raised a crop of — the past season upon the land measured by A. B., and that the quantity of grain raised thereon was — bushels and no more, (or measured in a seal half bushel as, the case may be,) and that the statements in regard to the manner of cultivation &c. are correct, to the best of my knowledge.

(Signed) C. D.

Sworn to before me, this — day of —, 185 . —, Justice.

*Second Class—Agricultural Productions,
Raised by the Exhibitor.*

1	For the best variety of Bread Corn, 1 bush.	as sample, \$3	3
2	" " " " Stock " 1 do. do.	3	3
3	" " " " Wheat 1 do. do.	3	3
4	" " " " Oats, 1 do. do.	3	3
5	" " " " Rye, 1 do. do.	3	3
6	" " " " Barley, 1 do. do.	3	3
7	" " " " Rice, 1 do. do.	3	3
8	" " " " Field Peas, 1 do. do.	3	3
9	" " " " Sweet Potat's, 1 do. do.	3	3
10	" " " " Irish do. 1 do. do.	3	3
11	" " " " Cotton, 2 Stalks as Sample,	2	2
12	" " " " Grass Seeds adapted to the South for Hay or Grazing,	5	5
12	For best specimen of Cotton, 50 lbs. in seed,	5	5
14	" the greatest variety of the above articles raised on one farm,	10	10
15	" " best specimen of Virgin Dip Turpentine, half gallon, as sample,	1	1
16	" " gallon, Rosin, 10 lbs. as sample,	1	1
17	" " " Hemp prepared or dressed,	3	3
18	" " " Flax " "	3	3
19	" " " Maple Sugar,	3	3
20	" " " Leaf Tobacco, not less than 10 pounds,	2	2

Third Class—Farm Products.

1	For the best half barrel Pickled or Mess Beef,	\$ 5	5
2	" " " " Mess Pork,	5	5
3	" " half dozen Bacon Hams regardless of age,	5	5
4	" " " Mutton or Venison Hams,	5	5
5	" " half barrel Roe and Cut Herrings,	5	5
6	" " " " Shad,	5	5
7	" " " " Mullet,	5	5

Exhibitors must state in full, in writing, the mode of Pickling the Beef and Pork, and curing and Preserving the Bacon.

DAIRY.

1	Best jar of Fresh Butter, not less than five lbs.,	3	3
2	" firkin of Butter 6 months old not less than twenty lbs.,	5	5
3	" New Cheese,	2	2
4	" " 12 months old,	3	3

The process of making and preserving the butter and cheese, must be given in full by the exhibitor.

FOOD, CONDIMENTS, &c., &c.

1	For the best specimen of Wheat Flour, not less than 1 barrel,	\$ 10	10
2	" 2nd " do. do. do.	5	5
3	" " do. Corn Meal, 1 barrel,	3	3
4	" " do. Rice Flour, 1-2 "	5	5
5	" " do. Buckwheat Flour, half barrel,	5	5

6	For best specimen Oat & Rye meal 1-2 barrel,	3	3
7	" " do. Starch from Wheat, Potatoes &c. 5 lbs. sample,	3	3
8	" " do. Flour Bread three loaves,	2	2
9	" " do. " Rolls 1-2 doz.	2	2
10	" " do. Corn Bread three Loaves,	2	2
11	" " do. Honey (strained) half gallon,	2	2
12	" " do. " in Comb 5 lbs.	2	2
13	" " do. Crackers, Soda, butter, and water, 10 lbs.	5	5
14	For the largest exhibition of Jellies, Preserves, Pickles, Jams, Catsups, Syrups, Cordials, &c. &c., made and exhibited by the same individual,	5	5
15	For the best specimen of the following dried fruits, not less than 1-2 bushel, Peaches, Apples, Pears, Figs, Grapes, Plums, Cherries, Whortle-Berries, for each,	2	2
16	For the largest exhibition of the above dried fruits made and exhibited by the same individual,	5	5
17	For the best specimen Domestic Wine, not less than 1-2 dozen bottles,	5	5
18	For the best and greatest variety of domestic wines, 1-2 doz. bottles of each variety,	10	10
19	For the best specimen of Linseed. Turpentine, Castor, Cotton Seed, Olive, Fennel, or any other variety of Oil, made in the State, and prepared by the exhibitor,	3	3

Fourth Class—Horticulture.

FRUITS ADAPTED TO THE SOUTH.

1	Best and largest variety Apples,	\$5	5
2	" " " Pears,	5	5
3	" " " Peaches,	5	5
4	" " " Quinces,	5	5
5	" " " Figs,	2	2
6	" " " Grapes,	2	2

Fruit Trees Suitable for Southern Raising.

1	Largest and best variety of Apple Trees,	\$5	5
2	" " " Pear " "	5	5
3	" " " Peach " "	5	5
4	" " " Strawberry vns.	1	1
5	" " " Raspb'ry " "	2	2
6	" " " Gooseberry " "	1	1
7	" " " Cranberries	1	1

Vegetables.

1	6 Best stalks of Celery,	\$2	2
2	6 " Cauliflower,	2	2
3	6 " Broccoli,	2	2
4	6 " Cabbage,	2	2
5	2 " Egg Plants,	2	2
6	" Variety of Squash,	2	2
7	" Peck Onions,	1	1
8	" Sugar Beets, Carrots, Parsnips. 1-2 doz. of each, for each,		

BRANCH THIRD.**MECHANICS (WITHIN THE STATE.)***First Class—Plows, &c.*

1	For the best Side Hill Plow,	\$10
2	" " Double Mould Board do.,	5
3	" " Cast Mould Board 1 horse do.	10
4	" " " 2 " do.	10
5	" " Wrought " 1 " do.	10
6	" " " 2 " do.	10
7	" " " Subsoil do.	10
8	" " " Cotton Scraper,	10
9	" " " Sweep,	5
10	" " " Toothed Cultivator,	5
11	" " " Harrow,	5
12	" " " Horse Rake,	5
13	" " " Iron Roller, smooth,	5
14	" " " " pegged,	5
15	" " " Weeding Harrow Plow,	5
16	" " " Farm Gate,	5
17	" " and greatest variety of Agri-	

cultural implements, manufactured in the State, by the exhibitor, or under his supervision, \$25

Second Class—Farm Vehicles, &c.

1	For the best 4 or 6 Horse Road-Wagon.	\$20
2	" " 2 do do	10
3	" " 1 do do	5
4	" " Horse Cart, (tumble)	5
5	" " Ox Cart and Yoke,	5
6	" " Wheel barrow,	2
7	" " Dumping Wagon,	5
8	Best pair Wagon or Plow Hames,	2
9	" Cart Saddle,	2
10	" Ox Cart Wheels,	3
11	" 2 Horse Pleasure Carriage,	25
12	" Phaeton, Rock'way or Top Buggy	15
13	" Open Buggy or Sulky, each,	10

*Third Class—Machinery, (made in this State.)***STEAM POWER.**

1	Best Engine for agricultural purposes, at work on the ground,	\$25
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HORSE POWER.

1	Best Sweep Horse Power,	\$15
2	" Railway " "	15
3	" Saw and Grist Mill, Corn and Cob Crusher and Threshing Machine, each,	15
4	" Broadcasting and Drilling Machine, for grain or grass,	10
5	" Broadcasting Machine for sowing Bone dust, Lime, &c., &c.	10
6	" Ditching Machine,	5
7	" Cotton Gin,	20
8	" Reaping Machine,	20
9	" Mowing Machine, for grass,	10
10	" Hay Press,	10
11	" Cotton do.	10

HAND POWER.

1	Best Fanning Mill,	\$5
2	" Corn Sheller,	5
3	" Straw and Shuck Cutter,	5

4	" Corn-Planter or Drill,	5
5	" Wheat do do	5
6	" Shingle Machine,	5
7	" Pump or Hydraulic Machine,	5
8	" Smut Machine,	10
9	" Churn,	5
10	" Sewing Machine,	5
11	" Sausage Cutter and Stuffer,	5
12	" Grain Cradle,	5

Fourth Class—Saddlery, &c.

1	Best set Carriage Harness,	\$15
1	" Buggy or Sulkey do.	10
3	" Gents. Saddle, Bridle and Martingals,	5
4	" Ladies' " " "	5
5	" set 4 Horse Wagon Harness,	5
6	" 2 do. do. do.	5
7	" 1 do. do. do.	3
8	" Cart Harness,	3
9	" Plow do.	3
10	" Halter and Collar or Pad,	3

CABINET WORK.

1	Best Bedstead,	\$5
2	" Cradle or Crib for Children,	3
3	" Rocking Chair,	3
4	" Half dozen Sitting Chairs,	3
5	" Centre Table,	3
6	" Wash Stand,	3
7	" Sofa or Settee,	5
8	" Wardrobe, Sideboard or Bureau,	5
10	" Desk, Book-Case, &c.	5
11	" Window Sash and Blinds, each,	5
12	" Pannel Door,	5

SHOES, HATS, &c.

1	Best pair of Gentlemen's Boots,	\$3
2	" " do. Shoes,	2
3	" half dozen Brogans,	3
4	" Dress Hat, silk or fur,	3
5	" Plantation Hat,	3
6	" half dozen Wool Hats,	3
7	" Straw or Grass do.	
8	" made Gentlemen's Coat,	5
9	" " Pants and Vest,	5

Fifth Class.—Sundries. [N. Carolina.]

1	Best lot of Guns,	\$ 5
2	" Stone, Glass or Earthen Ware, each,	5
3	" Cast (hollow) Ware, as Pots, Kettles, &c.,	5
4	" Wood ware, (hollow,) as Buckets, Tubs, Keelers, &c.,	5
5	" Casks, Barrels, &c.,	5
6	" Leather, Sole, Kip and Calf,	5
7	" Sidé of Harness Leather,	3
8	" of Baskets for farm use,	5
9	" Tin Ware,	3
10	" Edged Tools,	10
11	2d best lot "	5
12	For the best and largest exhibition of Mechanics Tools made in the State,	5

13	Best lot Manufactured Tobacco, Chewing,	10
14	" " " " Smoking,	3
15	" Cigars,	5
16	" Tallow Candles,	5
17	" Soap, with process of making,	3

BRANCH FOURTH---Manufactures.

First Class.—*Mill Fabrics.* [N. Carolina.]

1	Best piece 10 yards Broadcloth,	\$10
2	" 10 " Cassimere,	5
3	" 10 " Sattinette,	5
4	" 10 " Woolen Jeans,	5
5	" 10 " Linsey or Kersey,	5
6	" 10 " Flannel, plain & twilled,	5
7	Best pair of Blankets,	3
8	" " Felt Blankets,	3
9	" piece 10 yards Woolen Carpet,	5
10	" Hearth Rug,	5
11	" piece 10 yards Linen, (bleached,)	5
12	" " 10 " " (brown,)	5
13	" " 10 " Tow Cloth,	3
14	" " 30 " Osnaburgs,	5
15	" " 30 " Shirting and Sheeting,	5
16	" " 30 " Bed-ticking,	5
17	" " 30 " Cotton Jeans,	5
18	" Bale Cotton Yarn, (all numbers,)	5
19	" Cotton Sacking, 30 yards.	5
20	" lot Cotton Twine,	2
21	" lot Paper, printing, letter, cap. &c.,	5
22	" Coil of rope, hemp, cotton or bear grass,	5
23	" Mattress, hair, moss, shuck or cotton,	5

Second Class.—*Household Fabrics.*

1	" Best Counterpane,	3
2	" Bed-Quilt, (Cotton.)	3
3	" " (Silk,)	5
4	" Home-made Carpet,	3
5	" pair home-made Blankets,	3
6	" Hearth Rug,	3
7	" pair Yarn Hose,	1
8	" pair home-made Silk Hose,	2
9	" Woolen Shawl,	2
10	" Foot Mats,	2
11	" piece 10 yards (Negro) Woolen Cloth,	3
12	" " 10 " Rag Carpet,	3

MISCELLANEOUS.

1	For the best collection of useful Minerals of the State, including Coals Iron Ore, Copper Ore, Limestones, Marbles, Sandstones, Marls, Peats, Soils, &c.	\$
---	--	----

How Many and what Varieties of Apples are worth Cultivating?

EDS. RURAL:—The apple is the staple fruit of Western New York, and the trees are known by their fruit. In respect to the varieties that are productive and thence profitable to cultivate, farmers who have trees that have been

not less than fifteen years in bearing, are better judges than are fruit-fanciers and nurserymen. It is the vocation of these last to produce what will sell, and to sell whatthey produce, and on the long run their recommendations will often be found unreliable and worthless. It has been discovered within the last ten years that a man may have a large orchard of numerous varieties and yet have to buy his apples, if he has any.

Of the product of a considerable orchard planted twenty years since, selected with reference to quality and succession of fruit, embracing many varieties, then, as now, held in greatest repute, and having good soil and reasonable care, it has been found for the last several years that the apples I have had to sell and to keep have consisted mostly, indeed almost wholly, of the three following varieties, namely the *Rhode Island Greening*, *Roxbury Russet*, and *Red Baldwin*. These have been thirty-two, twenty-five, and fifteen years in bearing, respectively, and have not failed to yield abundant crops of good fruit, either annually or biennially, being varieties of extraordinary vigor and vitality. Upon some inquiry it is found that the above is the experience of others with slight exceptions.

The question here is not what trees will produce while the soil and wood are fresh and young, (the trees and fruit afterwards becoming worthless or defunct,) but what they will do on the long run, and whether they will pay cost? If there are six varieties of apples that are worth cultivating in Western New York, what are they? The loss that has resulted to the community from planting trees that are unproductive and worthless is incalculable. But the object herein is not to enlarge or assume, but rather to solicit for the public benefit the experience of farmers in regard to trees planted in the limestone or wheat region of New York, and that have been in bearing not less than fifteen years.

Tested as above, a large red and white apple, called the *Twenty Ounce* apple, has obtained a good reputation in this section—the tree being productive, vigorous and thrifty, and like the first named varieties, it requires very little pruning.

JOHN McVEAN.

Wheatland, N. Y., Feb. 19, 1855.

—*Rural New-Yorker.*

The Carolina Cultivator.

RALEIGH, MAY, 1855.

TERMS.

1 Copy in advance	\$1 00
8 Copies "	5 00
10 " "	8 00
13 " "	10 00
20 " "	15 00

We issue an Extra this month in order to give our readers the *Premium List* for the next Fair, without delay, and because we prefer to incur the expense of an extra, rather than encumber our columns with matter of this kind. We want all the space we can get, for strictly Agricultural Matter.

✂ We feel that we owe many thanks to our numerous friends who have expressed to us privately, by letter and otherwise, their approbation of our enterprise, and their satisfaction at the success with which it has been commenced. It is impossible to make the proper acknowledgments personally, but we take pleasure in doing so through this extra, and again pledge ourselves to use every exertion to render the CAROLINA CULTIVATOR a creditable publication to the Old North State. Let our friends but continue to smile encouragingly upon our effort. Sustained by their co-operation, we feel confident that our undertaking will be crowned with results flattering to ourselves, and eminently conducive to the farming interests of the people. Our present number is cheerfully submitted to the scrutiny of the public. We leave it to others to trumpet its praise, and base its claims upon its merits alone.

WHAT OUR NEIGHBORS SAY OF US.

We take advantage of our extra, to copy some of the numerous complimentary notices we have received from our brethren of the Press, for which we take this opportunity to return our hearty thanks, and to express the hope that all may reap a rich harvest, as a reward for their labors in the cause of agriculture.

The Farmer, published in Amherst, Mass., by J. A. Neal, says:

"The second number of the 'CAROLINA CULTIVATOR,' comes to us bright and cheerful, rich in matter, more than redeeming the promise of

its predecessor. CAROLINIANS WILL SUSTAIN THAT JOURNAL OR WE ARE MISTAKEN."

The Scientific American, the best scientific journal in the world, published by Munn & Company, 128 Fulton St. New York, at \$2, says:

"The Carolina Cultivator is a very neat and ably conducted monthly. It deserves a hearty support from the people of North Carolina.

The Trenton Independent Journal, a weekly paper published in Trenton, Tenn., says:

"OUR NORTH CAROLINA friends will find a valuable assistant in their farming operations, in the *Carolina Cultivator*. The specimen copy we have before us, is neatly prepared, and filled with interesting and useful editorials and selections, and will bring up recollections of old times to a large class of our most valuable citizens."

The Roanoke Republican says, "Every farmer ought to subscribe to it."

The Kaleidoscope, published in Petersburg, Va. Says, "Virginians, as well as Carolinians need *exactly such a paper*."

The Petersburg Express, says "It is a very handsomely printed and ably conducted periodical."

The N. C. Star, says, "The number before us is well gotten up, and promises to be a useful auxiliary to the farmers and artizans of N. Carolina.

The N. C. Argus, says, "With the specimen before us, we are decidedly pleased, and from the known energy and competency of the publisher, we look for a highly useful and interesting agricultural work. Success to the undertaking."

The Wilmington Herald, says, "It is worthy of patronage."

The Spirit of the Age, says, "The number before us is the best Agricultural publication we have seen in the State, and if succeeding ones are as interesting and profitable, it will not fail to receive a liberal support, for we believe the Farmers of North Carolina, will support a home Agricultural paper, if it be made worthy their patronage."

The Republican Banner says.—"The April number of this valuable agricultural journal has been received. It is devoted entirely to the agricultural interests of North Carolina farmers, and should be patronized by them. It is neatly gotten up and contains 32 large sized pages,"

1855

1855

THE CAROLINA CULTIVATOR.

A MONTHLY AGRICULTURAL JOURNAL.

PUBLISHED IN RALEIGH, N. C.

Farmers of the South, you have now an opportunity to secure for yourselves and families a monthly repository of the most useful information on all subjects connected with the practical management of the farm and the household, and a convenient vehicle for your thoughts and suggestions on the same subjects which you may desire to communicate to others. It is our design to fill the "Carolina Cultivator" with a variety of short, pointed, and useful selections, adapted to the seasons, culled from a large number of valuable exchanges; to invite contributions from every quarter, wherever experience may have acquired a new lesson in the art of cultivation or domestic industry; and in our editorial columns to condense such important additions to our stock of recent information as cannot be otherwise compressed into our limited pages. We will also present our readers with all the more important items of intelligence connected with the general advancement of agricultural knowledge, and endeavor in every proper way to stimulate the industry and enterprise of our fellow citizens.

The publisher of the "Carolina Cultivator" will be aided in the *Editorial* department of the paper, by gentlemen fully competent to make it one of the best Agricultural Papers in the country, and also by several able members of the State Agricultural Society, at whose earnest solicitation the work has been undertaken.

TERMS.

1 Copy in advance,	-	-	-	-	-	\$1 00
6 Copies	"	-	-	-	-	5 00
10	"	"	-	-	-	8 00
13	"	"	-	-	-	10 00
20	"	"	-	-	-	15 00

PREMIUMS.

The undersigned will pay the following PREMIUMS on subscriptions to the "CAROLINA CULTIVATOR" for volume first commencing with March 1855:

FIFTY DOLLARS,

IN CASH, to the person who shall procure the LARGEST NUMBER OF SUBSCRIBERS in any County or District in the United States. The list to be not less than two hundred subscribers at the regular price.

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IN CASH, to the person who shall procure the THIRD LARGEST LIST, of not less than one hundred and fifty subscribers.

TWENTY DOLLARS,

IN CASH, to the one procuring the FOURTH LARGEST LIST, of not less than one hundred subscribers.

TEN DOLLARS,

IN CASH, to the one procuring the FIFTH LARGEST LIST, of not less than fifty subscribers.

A correct account of the subscribers sent by each person will be kept and the Premiums will be announced in the SEPTEMBER NUMBER.

Specimen numbers and Prospectus sent to all applicants. Subscription money, if registered, may be mailed at our risk. All letters, &c, should be addressed to

WM. D. COOKE,
Raleigh, N. C.



THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

WILLIAM D. COOKE, PUBLISHER.

VOL. 1.

RALEIGH, N. C., MAY, 15, 1855.

NO. 4. EXTRA.

The following List of Premiums was published in an Extra of the CULTIVATOR last week, and also in several papers of the State. It was sent to us from the office of the Arator, and we supposed it to be correct, but it appears that it had not been revised and adopted by the Executive Committee, and many very important alterations and additions have been made. We, therefore, in order to give our readers the Official List, issue another Extra.

N. C. STATE FAIR.

OFFICIAL.

PREMIUM LIST

Of the third Annual Fair of the N. C. State Agricultural Society, to be held at Raleigh, October 16, 17, 18 and 19, 1855.

BRANCH 1.—Live Stock. FIRST DIVISION.

First Class—Thoroughbred.

- | | | |
|---|---|------|
| 1 | For the best Stallion over four y'rs old, | \$25 |
| 2 | " 2nd " do " | 15 |
| 3 | " the " Brood Mare " | 15 |
| 4 | " 2d " do " | 10 |
| 5 | " " Stallion over 2 & under 4 y'rs old, | 10 |
| 6 | " Mare " 2 " 4 " | 10 |

In this class purity of blood being the highest point of distinction, a well authenticated pedigree must, in every case, accompany each animal put on exhibition to compete for any of the above prizes.

Second Class.—Quick Draught and Saddle Horses.

- | | | |
|----|---|------|
| 1 | For the best Stallion over 4 years old, | \$20 |
| 2 | " 2nd " do " " | 10 |
| 3 | " " Brood-Mare, | 10 |
| 4 | " 2nd best Brood Mare, over 4 yrs old, | 5 |
| 5 | " " Stallion over 2 & under 4 years old, | 10 |
| 6 | " " Mare " " | 10 |
| 7 | " " Saddle-Horse, mare or gelding, | 10 |
| 8 | " 2nd, " do do do | 5 |
| 9 | " " pr. matched Carriage-Horses, raised in the State, | 20 |
| 10 | " 2nd " do do | 10 |
| 11 | " " Single-Harness Horse, raised in the State, | 10 |
| 12 | " " do do | 5 |

In this class, individual excellence in form, action and disposition, will be regarded as chief points of merit.

Third Class—Heavy Draught Horses.

- | | | |
|---|---|------|
| 1 | For the best Stallion over 4 years old, | \$20 |
| 2 | " 2nd " do " | 10 |
| 3 | " " Brood-Mare over 4 years old, | 15 |
| 4 | " 2nd " do " | 10 |
| 5 | For best Stallion over 2 & under 4 yrs old, | 10 |
| 6 | " " Mare " 2 " 4 " | 10 |
| 7 | " " pair heavy Draught Horses, raised in the State, | 10 |

In this class, form, size, and docility, will be regarded as chief excellencies.

JACKS AND JENNETTS.

IMPORTED.

- | | | |
|----------------------|--|------|
| 1 | For the best Jack, with apr'vd certificates, | \$20 |
| 2 | " " Jennette, " " | 10 |
| RAISED IN THE STATE. | | |
| 1 | " " and largest Jack, | 20 |
| 2 | " " Jennette, | 10 |

- the 15th of Nov. and the 15th of Dec.,
not less than 100 bushels per acre, 20
- 4 Second best do do 10
- 5 Best crop of Barley, not less than one acre,
nor less than 50 bushels per acre, 10
- 6 Best Crop of Rye, not less than one acre,
nor less than 40 bushels per acre, 10
- 7 Best erop Oats, not less than one acre, nor
less than 50 bushels per acre, 10
- 8 Best Crop of Buckwheat, and not less than
one acre nor less than 30 bushels per
acre, 10
- 9 For the best crop of Riee not less than 10
acres, nor less than 75 bushels per acre, 10
- 10 Best erop of Beans or Peas, not less than
one acre, nor less than 25 bushels per
acre, 10
- 11 Best crop of Ground Peas not less than 1
acre, nor less than 70 bushels to an acre, 10
- 12 Best crop of Cotton on not less than 4
acres, 20
- 11 Second best do do 10
- 34 Best crop of Pea Vine Hay, raised on 2
acres, one bale to be sent as a sample to
the State Fair, 20
- 15 Best crop of Native Grass Hay raised on
2 acres, one bale sent as a sample, 10
- 16 Best erop of Foreign Grass Hay raised on
2 acres, one bale sent as a sample, 10
- 17 Best crop of Sweet Potatoes, on not less
than half of an acre, nor less than 300
bushels per acre, 10
- 18 Best erop of Irish Potatoes, not less than
half an acre, nor less than 400 bushels
per acre, 10
- 19 Best erop of Turnips, not less than half
an acre, nor less than 500 bushels to the
acre, 10
- 20 Best crop of Turnips raised per acre. 5
- 21 Best crop of Beets, not less than 1-2 an
acre, 60 lbs. per bushel, nor less than
400 bushels per acre, 5
- 22 Best erop of Carrots, (with same condi-
tions as for beets,) 5
- 23 Best crop of corn-fodder, not less than 1
acre, with an account of culture, preser-
vation, &c., 5
- 24 Best erop of Tobacco, not less than four
acres, 10
- 25 Best half acre of Hops, with full account
of cultivation and preservation, 5
- 26 Best $\frac{1}{2}$ acre of Flax, with same account as
last, 5
- 27 Best $\frac{1}{2}$ " " Hemp, with do do 5
- 28 For best $\frac{1}{2}$ acre Clover Seed, do do 5
- 29 " " " Timothy Seed, do d 5
- 30 " " " Broom Corn, do do 5
- 31 " 5 " " Flax Seed, not less than
12 bushels per acre, 5
- 32 For best $\frac{1}{2}$ acre Mustard Seed, 5
- 33 For the best average product, to the acre
throughout the entire crop, of Wheat,
Tobacco, Corn or Cotton, 10
- 34 For the best crop of Dora Corn, not less
than 1 acre, 5

35 For best specimen of Ozier Willow—
Discretionary Pre.

*Statements to be made by competitors on Field
Crops*

1. The land must be measured by some com-
petent person, who shall make affidavit of the
accuracy of the measurement, and the quantity
of ground.

2. The applicant shall make affidavit, accord-
ing to the forms annexed, to the quantity of
grain raised on the ground, entered on the pre-
mium list, which affidavit must accompany the
application for premiums, together with a sam-
ple of the grain.

3. The principal object of the Society being
to promote profitable cultivation, it does not
offer premiums for crops produced by extrava-
gant expenditure; therefore, a detailed certified-
account of the expense of cultivation, must be
made; the expense of labor and manures stat-
ed; and the kind of manure used.

4. The kind and condition of soil; the quan-
tity and kind of seed used. The time and mode
of planting or sowing, stated.

Samples of grain and vegetables produced,
to be exhibited at the State Fair, where practic-
able, and also to be sent to the Ex. Com. at
Raleigh prior to the meeting of the Committee
in December.

5. The grain must either be weighed or mea-
sured in a legal half bushel, corn to be measur-
ed in the ear, and an average specimen of not
less than 20 bushels of ears shelled, cleaned,
and weighed or measured, as above, after the
15th of Nov., and the number of bushels thus
estimated, stated in the affidavit.

FORMS OF AFFIDAVIT.

— County, S. S. — A. B., being duly
sworn, says he accurately measured the land
upon which C. D. raised a crop of — the
past season, and the quantity of land is —
acres and no more. [Signed] A. B.

Sworn to before me, this — day of —,
185 .

— County, S. S. — C. D., being sworn,
says he raised a crop of — the past season
upon the land measured by A. B., and that the
quantity of grain raised thereon was — bushel
and no more, (or measured in a seal, statements
as, the ease may be,) and that the same are
in regard to the manner of sowing &c. are
correct, to the best of my knowledge. [Signed] C. D.

Sworn to before me, this — day of —,
185 ., Justice.

*Second Class—Agricultural Productions,
raised by the Exhibitor.*

- 1 For the best variety of Bread Corn, 1 bush.
as sample, \$3
- 2 " " " " Stock " 1 do. do. 3
- 3 " " " " Wheat 1 do. do. 3
- 4 " " " " Oats, 1 do. do. 3
- 5 " " " " Rye, 1 do. do. 3

“	“	Double Mould Board do.,	5
“	“	Cast Mould Board 1 horse do.	10
“	“	“ “ 2 “ do.	10
5	“	Wrought “ 1 “ do.	10
6	“	“ “ 2 “ do.	10
7	“	“ Subsoil do.	10
8	“	“ Cotton Scraper,	10
9	“	“ Sweep,	5
10	“	“ Toothed Cultivator,	5
11	“	“ Harrow,	5
12	“	“ Horse Rake,	5
13	“	“ Iron Roller, smooth,	5
14	“	“ “ pegged,	5
15	“	“ Weeding Harrow Plow,	5
16	“	“ Farm Gate,	5
17	“	“ and greatest variety of Agricultural implements, manufactured in the State, by the exhibitor, or under his supervision,	\$25

Second Class—Farm Vehicles, &c.

1	For the best 4 or 6 Horse Road-Wagon.	\$20
2	“ “ 2 do do	10
3	“ “ 1 do do	5
4	“ “ Horse Cart, (tumble)	5
5	“ “ Ox Cart and Yoke,	5
6	“ “ Wheel barrow,	2
7	“ “ Dumping Wagon,	5
8	Best pair Wagon or Plow Hames,	2
9	“ “ Cart Saddle,	2
10	“ “ Ox Cart Wheels,	3
11	“ “ 2 Horse Pleasure Carriage,	25
12	“ “ Phaeton, Rock'way or Top Buggy	15
13	“ “ Open Buggy or Sulky, each,	10

Third Class—Machinery.

STEAM POWER.

1	Best Engine for agricultural purposes, at work on the ground,	\$25
2	“ Locomotive Engine,	25
3	“ Railway rolled iron, specimen of a ton manufactured,	25
1	“ Pig Iron, do.	15

HORSE POWER.

1	Best Sweep Horse Power,	\$15
2	“ Railway “	155
3	“ Saw and Grist Mill, Corn and Cob Crusher and Threshing Machine, each,	15
4	“ Broadcasting and Drilling Machine, for grain or grass,	10
5	“ Broadcasting Machine for sowing Bone dust, Lime, &c., &c.	10
6	“ Ditching Machine,	10
7	“ Cotton Gin,	21
8	“ Reaping Machine,	20
9	“ Mowing Machine, for grass,	10
10	“ Hay Press,	10
11	“ Cotton do.	10
12	“ Brick Machine,	20

HAND POWER.

1	Best Fanning Mill,	\$5
2	“ Corn Sheller,	5
3	“ Straw and Shuck Cutter,	5
4	“ Corn-Planter or Drill,	5
5	“ Wheat do do	5

6	“ Shingle Machine,	5
7	“ Pump or Hydraulic Machine,	5
8	“ Smut Machine,	10
9	“ Churn,	5
10	“ Sewing Machine,	5
11	“ Saussage Cutter and Stuffer,	3
12	“ Grain Cradle,	5
13	“ Plantation Mill,	5

Fourth Class—Saddlery, &c.

1	Best set Carriage Harness,	\$15
1	“ Buggy or Sulky do.	10
3	“ Gents. Saddle, Bridle and Martingals,	5
4	“ Ladies’ “ “ “	5
5	“ set 4 Horse Wagon Harness,	5
6	“ “ 2 do. do. do.	5
7	“ “ 1 do. do. do.	3
8	“ Cart Harness,	3
9	“ Plow do.	3
10	“ Halter and Collar or Pad,	3

CABINET WORK.

1	Best Bedstead,	\$5
2	“ Cradle or Crib for Children,	3
3	“ Rocking Chair,	3
4	“ Half dozen Sitting Chairs,	3
5	“ Centre Table,	3
6	“ Wash Stand,	3
7	“ Sofa or Settee,	5
8	“ Wardrobe, Sideboard or Bureau,	5
9	“ Desk, Book-Case, &c.	5
10	“ Window Sash and Blinds, each,	5
11	“ Pannel Door,	5

SHOES, HATS, &c.

1	Best pair of Gentlemen's Boots,	\$3
2	“ “ do. Shoes,	2
3	“ half dozen Brogans,	3
4	“ Dress Hat, silk or fur,	3
5	“ Plantation Hat,	3
6	“ half dozen Wool Hats,	3
7	“ Straw or Grass do.	2
8	“ made Gentlemen's Coat, Pants. and Vest,	10

Fifth Class.—Sundries.

1	Best lot of Guns,	\$ 5
2	“ Stone, Glass or Earthen Ware, each,	5
3	“ Cast (hollow) Ware, as Pots, Kettles, &c.,	5
4	“ Wood ware, (hollow,) as Buckets, Tubs, Keelers, &c.,	5
5	“ Casks, Barrels, &c.,	5
6	“ Leather, Sole, Kip and Calf,	5
7	“ Side of Harness Leather,	3
8	“ dressed Buck, Sheep or Goat skins,	5
9	“ of Baskets for farm use,	5
10	“ Tin Ware,	3
11	“ Edged Tools,	10
12	2d best lot “	5
13	For the best and greatest variety of Mechanics Tools, made in the State,	10
14	Best lot Manufactured Tobacco, Chewing,	10
15	“ “ Smoking,	3
16	Best box Cigars,	5
17	“ “ Tallow Candles,	5
18	“ “ Soap, with process of making,	3

BRANCH FOURTH--Manufactures.*First Class.—Mill Fabrics.*

1	Best piece 1 yards Broadcloth,	\$10
2	" 1 " Cassimere,	5
3	" 1 " Sattinette,	5
4	" 1 " Woolen Jeans,	5
5	" 1 " Linsey or Kersey,	5
6	" 1 " Flannel, plain & twilled,	5
7	Best pair of Blankets,	3
8	" " Felt Blankets,	3
9	" piece 1 yards Woolen Carpet,	5
10	" Hearth Rug,	5
11	" piece 1 yards Linen, (bleached,)	5
12	" " 1 " " (brown,)	5
13	" " 1 " Tow Cloth,	3
14	" " 3 " Osnaburgs,	5
15	" " 3 " Shirting and Sheetting,	5
16	" " 3 " Bed-ticking,	5
17	" " 3 " Cotton Jeans,	5
18	" Bale Cotton Yarn, (all numbers,)	5
19	" Cotton Sacking, 30 yards.	5
20	" lot Cotton Twine,	2
21	" lot Paper, printing, letter, cap, &c.,	5
22	" Coil of rope, hemp, cotton or bear grass,	5
23	" Mattress, hair, moss, shuck or cotton,	5

Second Class.—Household Fabrics.

1	" Best Counterpane,	3
2	" Bed-Quilt, (Cotton.)	5
3	" " (Silk,)	3
4	" Home-made Carpet.	3
5	" pair home-made Blankets,	3
6	" Hearth Rug,	3
7	" pair Yarn Hose,	1
8	" pair home-made Silk Hose,	2
	" Woolen Shawl,	2
1	" Foot Mats,	2
11	" piece 10 yards (Negro) Woolen Cloth,	3
12	" " 10 " Rag Carpet,	3
13	" Knit Counterpane,	10

BRANCH V.—Experiments and Essays.**EXPERIMENTS.**

For each of the two best experiments, or series of experiments, on any of the following subjects, a premium, as follows :

1. Effects (in profit or loss) of the usual mode of saving corn fodder, by stripping the green blades and cutting off the tops, \$10

2. Cost and effects of sub-soil plowing, under different circumstances of soil and sub-soil, 10

3. Action or non-action of lime as manure, above the falls of the tide-water rivers, 10

4. Action or non-action of gypsum below the falls of the tide-water rivers, and on soils respectively rich and originally poor, and on the latter, after as well as before their being made calcareous, 10

5. Cost and effects of bone dust, (or phosphate of lime,) as manure, 10

6. How late in reference to the growth, the last tillage (by plow or cultivator,) should be given to corn for the best product; and whether the said last tillage should be shallow or deep, 5

7. Best series of comparative experiments in the cultivation of corn, 10

8. Benefits and products of guano, compared to costs; to be tested by not less than three different experiments, made under circumstances more or less different, 10

9. Benefits or profit of preserving or applying human excrements as manure, whether prepared for sale and distant transportation, or otherwise, but the whole operation to be in North Carolina, 10

10. Tide marsh mud, or swamp muck, or peaty soil, (either kind to be accurately described and characterized,) as manure, in compost with lime or otherwise, 10

11. Value of charcoal as an aid to fertility, 5

12. Value of sulphate of barytes as a manure, especially for clover, 5

13. Tobacco.—Culture, cost and profits of cultivating, and comparative effects on production, from different distances of planting, modes of pruning, topping, &c., comprising at least three different experiments, 10

14. Cultivation and comparative feeding value of rye, 5

ESSAYS OR WRITTEN COMMUNICATIONS.

For each of the best five on any of the following subjects, a premium, as follows :

1. On improving and enriching poor land—whether naturally poor, or naturally rich, or good, and subsequently exhausted by severe cropping, 5

2. On draining, 5

3. On rotation of crops, 5

4. On the accumulation, preparation and application of stock yard and stable manure, 10

5. On the "green sand" or gypseous earth of lower North Carolina as manure—and the facts and causes of effect or non-effect, 5

6. On the properties and value of the Southern Pea (or "cornfield pea" of any variety,) and the culture thereof, whether for saving the pea ripened, or ploughing under the growth, green or dry, for manure, and as a preparation for wheat or other grain crops, 5

7. On the comparative profit of planting and farming, and of the two combined—improvement of land being considered, 10

MINERALS, &c.

1 For the best collection of useful Minerals of the State, including Coals, Iron Ore, Copper Ore, Limestones, Marbles, Sandstones, Marls, Peats, Soils, &c., discretionary premium, 10

DISCRETIONARY PREMIUMS

Will be awarded for contributions to Floral Hall.

Works of art and taste, needle-work, paintings, drawings, &c. &c.

E. A. CRUDUP, *Chm'n. Ex. Com.*

W. D. COOKE, *Sec'y, Ex. Com.*

Rules and Regulations for the government of the Fair to be held in October, 1855.

1. All members of the N. C. State Agricultural Society will be furnished with a badge of membership, upon payment of the annual tax of \$3, and will be required to wear the same during the Fair. This badge will admit the ladies of his family and children under fifteen years of age.

2. Members of the Society and their families alone will be admitted on Tuesday, the day for examination and awards by the judges. All competitors are expected to be present. The public will be admitted on and after Wednesday, at 10 o'clock. Price of admission 25 cents. Children and servants 12½ cents. Clergymen, Editors and Pupils of charitable Institutions admitted free.

3. Agricultural Societies and Institutions from other States are invited to send Delegates. Such Delegates will be presented with a complimentary card.

4. All Exhibitors who intend to compete for the premiums of the Society, must become members of the same, and have their articles on the ground and entered at the Secretary's Office in Reception Hall, at or before 5 o'clock on Monday evening, Oct. 15th, without fail, so that they may be arranged in their respective departments, and in readiness for examination by the Judges on Tuesday morning at 10 o'clock.

5. The regulations of the Society must be strictly observed by exhibitors, otherwise the Society will not be responsible for the omission of any article or animal not entered under its rules.

6. No article or animal entered for a premium can be removed or taken away before the close of the exhibition. No premium will be paid on articles or animals removed in violation of this rule.

7. All articles and animals entered for exhibition must have cards attached with the number as entered at the Secretary's Office; and exhibitors in all cases must obtain their cards previous to placing their articles or animals on the Fair grounds.

8. Those who wish to offer animals or articles for sale during the Fair must notify the Secretary of such intention at the time of entry.

9. The Executive Committee will use every precaution in their power, for the safe preservation of all articles and stock on exhibition, and will be responsible only for loss or damage that may occur during the Fair. Exhibitors must give attention to their articles or animals during the Fair, and at the close of the exhibition attend to their removal.

10. The awarding committees or judges, selected for the next Fair, are earnestly requested to report themselves to the chairman of the Executive Committee at Reception Hall, upon the grounds of the Society, on Tuesday morning, the 16th day of October, 1855.

11. In no case can the Judges award special or discretionary premiums; but will recommend to the Executive Committee any articles in their class which they may deem worthy of special notice and for which a premium has not been offered.

12. The Judges on animals will have regard to the symmetry, early maturing, thorough breeding, and characteristics of the breeds which they judge. They will

make proper allowances for the age, feeding and condition of the animals, especially in the breeding classes, and will not give encouragement to over fed animals.

13. No stock of inferior quality will be admitted within the grounds; a committee will be appointed to rule out all below a medium grade.

14. Animals to which premiums have been awarded must be paraded around the track, that visitors may see the prize animals.

15. No person will be allowed to interfere with the Judges during their adjudications.

16. The several Superintending Committees will give particular direction to all articles in their departments, and see that all are arranged in the best order possible to lessen and facilitate the labors of the Judges in their examination.

17. The Superintendants will attend each set of Judges in their respective departments and point out the different articles or animals to be examined, will attach prize cards to the articles, or flags to the successful animals after the Judges' reports have been made up and delivered to the chairman of the Executive Committee.

18. The Judges will withhold premiums on animals or articles in their opinion not worthy; though there be no competition.

19. Animals having received premiums of the Society at previous exhibitions, will not be allowed to compete for prizes again in the same class.

20. Stock brought to the Fair for sale, will have an enclosed lot adjoining the Fair grounds assigned them, with water convenient, where they can be kept at the expense of the owner.

21. Articles manufactured in the State, when brought in competition with foreign articles will take precedence, other things being equal, and the foreign article be entitled to a second premium.

22. No vehicles or horsemen will be allowed entrance on the Fair grounds, except the private carriages or horses of members, through the private gate.

23. The Chief Marshal, with efficient aids, will be in attendance during the hours of exhibition to keep proper order.

24. No exhibitor will be permitted to enter more than one animal in each of the sub-classes.

25. Animals, when duly entered, are well provided for by the Society, without charge to the owner, and cannot be removed from the grounds, except by permission of the Executive Committee.

26. All machines, implements, or other products of mechanical art, must be exhibited by their respective makers, or inventors, or improvers, or their assignors, to or for whom only premiums for such articles will be awarded.

27. Every machine or implement offered for a premium, must be so designated or described as will serve to identify it to future purchasers, and also the selling price of the article must be stated and marked on the labels and in the published reports of premium articles.

28. Efficiency, cheapness and durability will be regarded as chief excellencies in every machine or implement.

29. The Chief Marshal will call the Judges at 10 o'clock on Tuesday morning—assemble them at his tent

on the grounds—furnish them with the printed list of premiums, also with blank books in which to register their awards, and have the Judges conducted by the assistant marshals to their respective departments of the exhibition.

30. The Marshal and his aids shall give particular attention to the proper arrangement of all articles exhibited in their respective departments; point out the articles or animals to the Judges, and otherwise facilitate the examination by the Judges.

31. The track will be open for the trial of harness and saddle horses every day during the Fair.

32. A band of music will be in attendance each day, during the hours of exhibition.

33. An efficient police will take charge of the grounds during the night.

JUDGES TO AWARD PREMIUMS.

1. *Thoroughbred Horses*.—Col. Edmond Towns of Granville, Hon. Chas. Manly of Wake and James W. Patton of Buncombe.
2. *Quick Draught and Saddle Horses*.—Hiram R. Nixon of Wayne, Col. Jos. A. Whitaker of Franklin, and — Hyatt of Guilford.
3. *Heavy Draught Horses*.—John B. Leathers of Orange, Henry T. Clarke of Edgecombe, Charles G. Yates of Guilford.
4. *Jacks and Jennetts*.—Hon. Abram Rencher of Chatham, Jno. M. Moody of Northampton, Jno. L. Dancy of Edgecombe.
5. *Mules*.—Wm. Faison sr. of Sampson, Jos. J. Jones of Warren, Ashley Saunders of Johnston.
6. *Short Horn and Durham Cattle*.—Jas. A. Williamson of Caswell, Col. Nich. M. Long of Halifax, Wm. K. Lane of Wayne.
7. *Devons*.—Henry T. Burgwin of Northampton, Henry Elliott of Cumberland, Rev. Josiah Crudup of Granville.
8. *Ayershires, Alderneys and Herefords*.—T. P. Devereux of Halifax, Col. Isaac T. Avery of Burke, Col. Cad. Jones of Hillsboro'.
9. *Grades and Native Cattle*.—N. W. Woodfin of Buncombe, Owen Fennel of N. Hanover, Wm. Eaton sr. of Warren.
10. *Imported Cattle*.—Dr. Wm. R. Holt of Davidson, Geo. W. Johnson of Caswell, Jno. A. Everitt of Onslow.
11. *Working Oxen*.—Richard K. Smith of Chatham, S. S. Royster of Granville, Jacob Mordecai of Wake.
12. *Fat Cattle*.—Hon. J. M. Morehead of Guilford, Eldridge Smith of Wake, Jacob H. Cooley of Franklin.
13. *Milk Cows*.—Hon. A. W. Venable of Granville, Seth Jones of Wake, T. C. D. McDowell of Bladen.
14. *Sheep—First Class*.—Paul C. Cameron of Orange, R. P. Taylor of Granville, Jas. E. Metts of Brunswick.
15. *Sheep—Second Class*.—Wm. J. Long of Caswell, H. B. Elliot of Randolph, Hugh McLean of Cumberland.
16. *Goats*.—Jno. O'Roke of Wake, — Coppedge of Franklin, Riley Crawford of Wake.

17. *Swine—Large Breed*.—Rich. H. Smith of Halifax, Sylvester Smith of Wake, Oel. L. W. Humphrey of Onslow.

18. *Swine—Small Breed*.—Hon. Kenneth Rayner of Hertford, J. C. Smith of Cumberland, Tho. C. McIlhenny of New Hanover.

19. *Swine—Natives*.—Wm. O. Green of Franklin, C. Wooten of Lenoir, Wright Edmondson of Edgecombe.

20. *Poultry*.—Nich. Arrington of Nash, Thos. J. Blacknal of Granville, Seth B. Jones of Chatham.

21. *Agricultural Productions*.—Patrick Edmondson of Halifax, Alonzo Mial of Wake, Jos. S. Holt of Alamance.

22. *Farm Products*.—Jas. A. Bullock of Granville, Josiah Collins of Tyrell, Samuel A. Spruill of Bertie.

23. *Dairy*.—T. P. Burgwin of Northampton, Ed. G. Reade of Person, Wm. Eaton jr. of Warren.

24. *Food, Condiments, &c., to No. 14*.—Daniel S. Hill of Franklin, Wm. Upchurch of Wake, Jno. W. Taylor of Chatham.

25. *Food, Condiments, &c., from No. 14 to 19*.—Jno. W. Cunningham of Person, Chas. Skinner of Warren, Jos. B. Cherry of Bertie.

26. *Horticulture*.—Rev. Dr. R. S. Mason of Wake, Jno. W. Thomas of Davidson, Jno. F. Irwin of Mecklenburg.

27. *Fruit Trees*.—Owen Holmes of Sampson, R. R. Bridgers of Edgecombe, Daniel Christian of Montgomery.

28. *Vegetables*.—Genl. H. G. Spruill of Washington, David Carter of Hyde, Isaac B. Kelly of Duplin.

29. *Mechanics—First Class*.—Jno. McManien of Orange, Jno. D. Whitford of Craven, N. F. Nixon of New Hanover.

30. *Mechanics—Second Class*.—Jas. S. Leathers of Orange, Thos. McGee of Person, Wm. S. Battle of Nash.

31. *Mechanics—Third Class*.—Jos. H. Gooch of Granville, H. G. Bruce of Wake, Wm. Albright of Chatham.

32. *Saddlery, &c.*—Samuel P. Hill of Caswell, D. M. Barringer of Cabarrus, S. Wooten of Columbus.

33. *Cabinet Work*.—Jas. S. Williams of Martin, Jno. Graham of Richmond, Wm. Murphy of Rowan.

34. *Shoes, Hats, &c.*—A. S. Brown of Rowan, D. A. Barnes of Northampton, J. A. Lindsey of Guilford.

35. *Sundries, to No. 12*.—Jno. W. Norwood of Orange, Jno. W. Lewis of Caswell, David Hinton of Edgecombe.

36. *Sundries, No. 13 to 17*.—Thos. H. Miller of Granville, Dr. Henry L. Plummer of Warren, Hon. D. S. Reid of Rockingham.

37. *Mill Machinery*.—Dr. Geo. Field of Warren, H. B. Williams of Mecklenburg, Dr. — Stanley of Craven.

38. *Household Manufactures*.—E. J. Hale of Cumberland, Peyton A. Atkinson of Pitt, Robert Cather of Haywood.

39. *Minerals, &c.*—Spence McClanahan of Chatham, Jas. Sloan of Guilford, Chas. F. Fisher of Rowan.

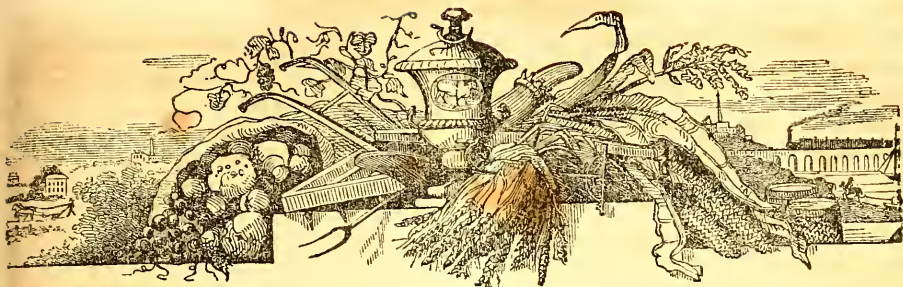
40. *Experiments and Essays*.—Hon. Wm. A. Graham of Orange, Hon. David Outlaw of Bertie, Hon. G. E. Badger of Wake.

41. *Discretionary Premiums*.—Walter L. Steele of Richmond, Jno. Devereux of Halifax, Jno. Wipslow of Cumberland, Calvin Graves of Caswell.

E. A. CRUDUP, Ch'm. Ex. Com.

W. D. COOKE, Sec'y. Ex. Com.

W. H. Jones



THE CAROLINA CULTIVATOR.

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NO. 4.

Economy in Farm Implements.

As it is in other business, so it is in farming, that true economy does not always consist in a niggardly expenditure. The rapid improvements made in the mechanic arts, in the cotton manufacturing department for instance, has induced many a corporation to throw out fifty thousand dollars worth of machinery before it was half worn out, for the purpose of introducing new processes and improved patterns.--- Enormous as was the sacrifice, it was economy to make it, inasmuch as the old modes involved such an expenditure of time and labor, that manufacturing in that way would be done at a loss, beside new mills running on the improved plans. Formerly the bleaching of cotton goods in England was effected by exposing them to the united action of light and moisture; but at this day all the meadow lands of England would not be sufficient for the purpose.

What is true in the cotton manufacture, is true in all other departments of the mechanic arts, and in agriculture. These arts have at this day become the hand-maidens of agriculture, and a man, to farm it economically and judiciously, ought to have no inconsiderable amount of mechanical and constructive skill. When the plow consisted simply of a forked stick fastened by thongs of leather to the horns of a pair of bullocks, an ignorant hind who knew nothing beyond holding on to the single

handle, and following the scratch made in the soil, was sufficient for the task of the plowman. When the rude reaping-hook, of capacity to cut at a stroke only a single handful of grain, was the most complicated implement used in securing the harvest, a peasant girl would answer to perform the labor; but now that the gang-plow, the cultivator, the seed-drill, the horse-rake, and the grain-harvester are among the economies of the farm, a knowledge of mechanics, sufficient to perform ordinary repairs and adjustments, is necessary for the successful operator.

A hand-rake costs but a shilling, while a horse-rake costs ten or fifteen dollars; but will any person pretend to say it is economy to reject the latter, and to retain the former? Any man can cut a crotched stick in his own forest, (if he have a forest,) while a first class plow costs seven to ten dollars; yet who but a Mexican or a savage, would maintain the superiority of the former on the score of economy?--- We are not prepared to say that it would be economical for every small farmer to purchase a grain harvester, a threshing mill, or a horse power; but it certainly would be so for many large farmers who have neither; and it might not be a bad investment for two or more of the former class, who can agree together to own them in company. We knew a man who farmed it for years, and cut from ten to twenty acres of grass, on as smooth a meadow as one could

wish to see, and secured it by hand, rather than go to the expense of buying a horse rake. He shut his eyes to the palpable truth, that the extra labor of a single season would have paid for the implement. Even the labor of the farmer's daughters in raking after the cart, would have paid for the rake in five years. The item of expenditure, but perhaps more the hostility to innovation, prevented him from expending \$10 and thereby saving hundreds.

One of the necessary results of intelligence, and a cultivation of the mind among the mass of men, is the invention of labor-saving machines, whereby one man can perform the work of hundreds; and of late years the department of agriculture is receiving its full share of the benefits of inventive genius. It is the duty of the agriculturist to encourage these efforts, by co-operating heartily with inventors, by adopting at once, and at a liberal price, all real improvements in agricultural implements and machines, and not wait until the patent right has expired, or until the inventor, not unfrequently a poor mechanic, is compelled by his necessities to barter away his rights to some scheming speculator for a mess of pottage. It is within the memory of our young readers, when cultivators and seed-drills were considered among the doubtful experiments of the time; when grain-harvesters were not thought of except as the vagaries of a disordered brain; and yet the former are a part of the farm economies of even men of moderate means, and the latter are fast working their way into general use.

There are machines a farmer can do without, such as *dashing buggies, fancy sleighs, silver-plated harness*, and all the paraphernalia of an expensive luxury; but farm implements of approved patterns, in all the departments of agriculture to which he turns his attention, are among the economies of his calling. He is blind to his own interest who uses an implement even but half worn out, when an improved pattern is altogether preferable. How would a cotton manufacturer thrive to-day, if he were to pick over the raw material by hand, employ a thousand girls to twirl each a single spindle, and stout-fisted men to drive the lathe and shuttle? Starvation and ruin would come upon them all in a month, and grass would soon grow in the streets of such a manufacturing city. The same process of reasoning will apply to the agricultural interests. The farmer of fifty years

ago will not prosper as the farmer of to-day, unless he adapt himself to the times, and adopt the improvements of the age. An abundant supply of the best agricultural implements, well used in the proper season, and well housed and secured out of it, is a certain indication of prosperity.—*Exchange Paper.*

Fattening Animals.

There are certain principles which apply to the feeding of all animals which we will shortly notice.

1. The *breed* is of great importance. A well bred animal not only affords less waste, but has the meat in the right places, the fibre is tender and juicy, and the fat is put on just where it is wanted. Compare the hind leg of a full-blood Durham ox, and a common one. The bone at the base of the tail extends much further in the former, affording more room for flesh, and the thigh swells out of convex or circular shape; while in the common ox it falls in, dishing and hallow. Now the "round" is the most valuable cut, and is only found in perfection in high-bred stock. The same is the case over the whole body. So well do eastern butchers understand this, that their prices are regulated by the breed, even where two animals are equally fat. They know that in a Durham or Hereford ox, not only will there be less offal in proportion to weight, the greatest quantity of meat will be where it brings the highest price when retailed, and will be of a richer flavor, and more tender fibre. The same is the case with hogs. A large hog may chance to make more meat on a given quantity of food than a small one, but the meat of the first will be coarse and tasteless compared with the other; and in the east, flavor and tenderness greatly regulate prices.—Consequently, moderate sized, short-legged, small headed hogs, always, in the long run, beat large breeds out of favor. In preparing for a market, "fashion and taste" must be as much considered by the farmer as by the tailor. This one fact is at present revolutionizing the English breed of sheep. The aristocracy always paid high for small Welch and Scotch mutton; but the great consumers, the mechanics, preferred large fat joints. The taste is now changed. In Manchester and other such cities, these large joints have become un-

saleable; and all the efforts of the breeder are now turned towards small breeds maturing early, with comparatively little fat. According to late writers, the large Leicester and Cotswolds are going quite out of fashion.—When we give \$3,000 for a Durham bull it is not that his progeny are “intrinsicly” more valuable to that amount, but the increased value and the fashion together, make up the difference. And it is thus, that while Durhams and Herefords are preferred for ships and packing, Devons are high in repute for private families. The joints are smaller, but the meat has a peculiar richness, probably found in no other kind of stock; and the proportionate waste is said to be less than in any other breed. Thus in the London market, the Scotch Kyloes, and then the Devons, (the former even smaller than the latter,) bring the highest price, because preferred by the aristocracy. So in Dublin, spayed heifers are sought for. But the breed also regulates the profit. There is nothing more certain than that one kind of animal will fatten to a given point on much less food than another, and as fattening our stock is only another mode of selling our grain and grass, those animals are to be preferred which come to maturity soonest, and fatten on the least food.—The difference in hogs is very great and important. While some breeds must be fed for two, or even three winters, others are full grown and fattened at ten months old; and the difference in profit is enormous. We cannot go into particulars, but the following rules may be considered as applying to all: An animal may be expected to fatten easily when it has fine soft elastic skin, with thin or silky hair; the head and legs short, the “barrel” large, but chest and lungs small; and when it is quiet, sleepy, and easy in temper. An unquiet, restless, quick-tempered animal, is generally a bad feeder, and unprofitable.

2. Much depends in fattening on outward and mechanical management. Fat is *carbon*, or the coal which supplies the body with heat. If we are exposed to cold, it is burnt up in our lungs as fast as it is deposited by the blood; but if we are kept warm, by shelter or clothing, it is deposited throughout the body, as a supply on hand when needed. Warm stables and pens are a great assistance in fattening, and should never be neglected. So also quiet and

peacefulness are important. Every excited action consumes some part of the body which has to be supplied by the food, and detracts from the fat. In the climate of Michigan, warm stables, regular feeding at fixed hours, and kind treatment, with perfect cleanliness, save many a bushel of grain. Animals fed at irregular times are always uneasy and fretting.

3. Ground and cooked food fatten much more profitably than raw food. Mr. Ellsworth found that hogs made as much flesh on one pound of corn ground and boiled to mush, as two pounds raw unground corn; though the first did not fatten quite as rapidly, as they could not consume as much food in the twenty-four hours. By grinding and smoking, ten hogs will each gain 100 pounds in weight, on the same food that five would do if it were raw.

4. A change of food helps in fattening. Thus an ox fed entirely on corn and hay will not fatten as fast, or as well, as one which has root, pumpkins, ground oats or buckwheat, &c., fed to it at regular periods. The latter may contain intrinsically less nourishing matter than the corn, but the change produces some unknown effect on the stomach and system, that adds to the capability of depositing fat. The best feeders change the food very frequently, and find that they make a decided profit by so doing; Salt should be given with every meal to cattle—say an ounce a day. It preserves the appetite and prevents torpor of the liver to which all fattening animals are subject. This torpor, or disease, is to a certain extent conducive to fat; but carried too far the animal sinks under it.

5. In cattle the skin should be particularly attended to. A fat animal is in an unnatural state, and consequently easily subject to disease. Taking no exercise, it has not its usual power of throwing off poisons out of the system; and if the skin is foul, the whole labor is thrown on the kidneys. It is found by experience that oxen, regularly curried and cleaned daily, fatten better and faster than when left to themselves; and if the legs are pasted with dung, as is too often the case, it seriously injures the animal.

6. Too much rich food is injurious. The stomach can only assimilate a certain quantity at once. Thus an ox will prosper better on 30 lbs. of corn and 30 lbs. of cob ground toge-

ther daily, than on 40 pounds of ground corn. These mixtures are also valuable and saving of cost for hogs when first put in the pen. If an animal loses its appetite, the food should at once be changed, and if possible roots, pumpkins, or steamed hay may be given.

7. Oxen will fatten better if the hay or stalks are cut for them, but care must be taken not to cut too short. An inch in length is about the right size for oxen, half or three-quarters of an inch for horses.—*Furmer's Com. and Horticultural Gazette.*

Origin of Various Plants.

Every gentleman farmer ought to be somewhat acquainted with the origin and history of all ordinary plants and trees, so as to know their nature, country and condition. Such knowledge, besides being a great source of pleasure and very desirable, will often enable him to explain phenomena in the habits of many plants, that otherwise would appear inexplicable.

Wheat, although considered by some as a native of Sicily, originally came from the central table-land of Thibet, where it yet exists as a *grass*, with small, mealy seeds.

Rye exists wild in Siberia.

Barley exists wild in the mountains of Himalaya.

Oats were brought from North Africa.

Millet, one species is a native of India, another Egypt and Abyssinia.

Maize, Indian corn, is of native growth in America.

Rice was brought from South Africa, whence it was taken to India, and thence to Europe and America.

Peas are of unknown origin.

Vetches are natives of Germany.

The Garden Bean, from the East Indies.

Buckwheat came originally from Siberia and Turkey.

Cabbage grows wild in Sicily and Naples.

The Poppy was brought from the East.

The Sunflower from Peru.

Hops came to perfection as a wild flower in Germany.

Saffron came from Egypt.

The Onion is also a native of Egypt.

Horseradish from South Europe.

Tobacco is a native of Virginia, Tobago and

California. Another species has also been found wild in Asia.

The Grasses are mostly native plants, and so are the Clovers, except Lucerne, which is a native of Sicily.

The Gourd is an Eastern plant.

The Potato is a well known native of Peru and Mexico.

Koriander grows wild near the Mediterranean.

Anise was brought from the Grecian Archipelago.—*Dollar Newspaper.*

Heading Cabbages.

I have been troubled much at times with the untowardness on the part of my cabbages, and cauliflowers as well as broccoli, to form their appropriate heads. Conversing on the subject some two or three years ago with a friend, on Horticulture, he informed me that some one of much practical experience in the raising of such vegetables, told him, that the way to insure their heading was to transplant them twice, the second transplanting to take place at a moderate interval of time after the first. The very next year another friend, who had been bringing forward many ordinary garden vegetables in a hot bed, sent me a number of well-grown plants both of cauliflowers and cabbages when those I had planted had scarcely been above ground. At the time I received them, I had not prepared the ground destined for the reception of such vegetables, and was too busy with other things to do so forthwith. I accordingly struck the end of a hoe-blade into a soft well prepared border, and turning the handle down so as to leave a sufficient cavity, put the cabbages in, in a bunch as I received them. I did the same with the cauliflowers, and then left them to their fate. About ten days or a fortnight afterwards, having got the proper spot of ground prepared, and finding my plants, thus rudely transplanted before, looking thrifty, I took them up and reset them properly in their destined bed. As for the result I can only say, that I never before had any of either race that headed so well, and so uniformly as did these.

On the first of June, roses and other flowers bloom abundantly in the public gardens of Paris.

Diseases of the Udder and Teats in Cows.

The subjoined cases of disease, injury, and obstruction in the teats and udder of cows will furnish useful hints to many agriculturists and graziers, and are likely to be of interest to all our readers. They are taken from a paper, with title as above, in the "Veterinarian for September, (an English publication by Mr. W. A. Cartwright, a veterinary surgeon of high reputation.)"

Case 1.—Obstruction of a Cow's Teat.—In 1831, I was called to attend a cow, the property of Mr. Tudman, of Yoking's Gate, near this town, that had calved a week ago, and had borne two calves before. There was an obstruction up one of the teats, and the udder was very much distended with milk. I merely introduced a knitting-needle up it for about two inches, and broke down two different pieces of coagulum or membrane that crossed it, and the milk could be immediately drawn off, and she did well without any further trouble.

Case 2.—Injury to a Cow's Teat.—The 17th of Sept., 1845, Mr. Garratt, timber merchant of this town, had a cow that had just met with an injury to one of her teats, in having a little of the end of it cut off slantwise. Although we fomented the parts, bled her, and repeatedly passed the silver milk-tube up it, yet she became "gargated," and lost her quarter.

When the teat is injured, we scarcely ever do any good. At first, the milk becomes obstructed in the teat, and, by the introduction of the tube, the teat and the udder become inflamed. Then scarcely any milk flows, and what comes is frequently bloody; but soon it entirely ceases. Now only some serum can be drawn out, and soon this ceases. Next, pus forms, and sometimes comes out in clots; at others it is tolerably liquid; and if it cannot be well got out, the udder hardens in places, and abscesses form, and now the udder is completely destroyed for secreting milk, and she is completely "gargated."

In April, 1846, this same teat again became highly inflamed and swollen, and pus formed within it. I inserted caustic lint in its orifice, which was nearly closed up; a slough came out, and the pus discharged well. Abscesses afterward formed in the udder, which

(the abscesses) ultimately got well, but the udder became scirrhus.

Case 3.—Obstruction in a Cow's Teat.—April 17, 1844, was sent for to attend a cow that calved yesterday; no milk could be got out of the anterior off-teat. On examining it I found that at about an inch and a half up it there was a thickening for about half an inch in length of the lining membrane, and no doubt the sides of which were united, and the passage was completely obstructed. I first passed a probe, and forced it through, after which I passed a silver tube up it, and then the milk ran freely and relieved the udder.

On the 18th and 19th, I introduced the tube pretty easily, and the milk ran through it readily, and I was in hopes that the tumor, a "thunk," as it is called about here, in the passage would become absorbed. Some of the milk could be drawn by the hand after the tube was removed.

20th.—I introduced the tube again, but no milk came out. The teat was sore, and from the orifice a little blood oozed out. To be left alone.

21st.—The teat and udder were much sorer, and the orifice was closed up and swollen, and a little blood oozed out. With some little trouble, I again introduced the silver probe, and milk passed very fluently. I forgot to observe that this cow was bred by the owner, and that nothing had ever been amiss with her teat before, and she was well when she was loosed dry.

29th.—The milk has been got out very well, and the udder is very soft; but from some cause or other, the teat is now a good deal diseased, as it is difficult to introduce the tube.—Pus and serum are now within it. The tumor in the teat is as hard as ever, and the tube is obliged to be still forced through it. I fancy the teat has become inflamed from rubbing some Ung. Potas. Iodid. on it and the udder, and from another person forcing the tube up. This case I left off attending, in consequence of other interference: abscesses formed, and she lost the quarter.

Case 4.—Obstruction in a Cow's Teats.—13th April, 1844, I was sent for to a cow that had been purchased at our fair on the 11th instant, that had got obstructions in two of her teats; she had calved two or three days before she was bought; no milk could be got out of

the hinder teat on the off side, or any out of the anterior one on the near side; the obstruction was about half way up in each teat, and I could not pass even the silver probe through the off-teat. I did so in the other, but could not, on account of the smallness of the orifice of the teats, introduce the silver tube into either of them. Both quarters took good ways, and nothing more was done but fomenting, drawing, and hand-rubbing the teats and udder which became quite soft, and the milk flowed out well.

Case 5.—*Obstruction in a Cow's Teat.*—June 6, 1843, Mr. Green, shoemaker in this town, purchased a cow at our late fair, and at the time of purchase her udder was freely distended with milk; at night she was milked, and it was found that from only three of the quarters could the milk be drawn off. From the other he could extract only about half a teacupful again, and in the same way only a similar quantity could be obtained. The owner took her again on my pronouncing her unsound.

Observations.—The obstruction in this case lay at the upper part of the teat, and there must have been a stricture there, as there was only a small orifice to admit the milk through. I could not detect any thickening or tumor about the parts. Not near all the milk was obtained from the quarter, yet it was not coagulated.

Case 6.—*Obstruction at the End of a Heifer's Teats.*—18th of March, 1845, I was called in to see a two-year-old heifer, belonging to Mr. Tomlinson, of Chinnell. She was about a month off calving. At the very end of the teats there was substance like a smooth wart hanging from them, and one was half an inch long, the other not so long. They were closely adherent, and closed up the orifices of the teats. As they did not look like the common wart, I plucked them away. When away I found they left a concavity at the end of each teat, and the orifice of each teat was perfectly exposed, and the ends and whole of the teats were soft and natural. The substances removed were similar in appearance to masses of gum arabic, and were formed of concentric layers on each other.

I am inclined to think that they were formed from a secretion on the inside or orifice of the teats, and as it oozed out became a hardened

mass. Ordered the teats to be occasionally well soaked in warm water, to supply the parts, and to remove any fresh deposit.

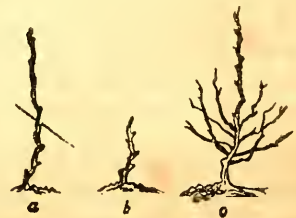
Cultivation of the Pear Tree.

In a recent number of the *Farmer* we gave many minute suggestions about the *cultivation of the grape*, with such plain outline illustrations as would enable any one, however unskilled in the practice, to proceed with success. We propose now to do the same with the Pear, availing ourselves of such help as we find in the books—particularly "Thomas's American Fruit Culturist,"—and of suggestions gathered from conversations with some of the best pear culturists in Massachusetts.—But this article will be devoted to *dwarf* trees; the *standard* trees being those in which the *natural* form is developed, and which attain the largest size, and produce the most fruit with the least care. They are slow of growth, however, and occupy a good deal of space.

The *dwarfs*, on the contrary, may stand within ten or twelve feet of each other, or even less, and will produce fruit abundantly, in the course of three or four years. They require a deep moist, rich soil, such as would produce good garden vegetables, with frequent cultivation during all the growing months. Thomas says—

For *pyramids*, (a form of training applied most frequently to dwarf pears,) the early treatment is quite different from that of standards. As the sap tends to the summit of the tree, producing the strongest side-shoots towards the bottom, the natural form of the tree gradually becomes a trunk or stem, with a branching head. To prevent this result, and give a strong broad set of branches at the bottom, a thorough and regular system of shortening-down must be adopted at the outset. The following is a brief outline of the course usually pursued.

After the single shoot from the bud has grown



one season, (fig *a.*) it is cut down so as to leave not over one foot, and if the tree is weak not over six inches, (*b.*) As a consequence, the buds on this remaining portion, receiving all the sap, make a vigorous growth. The upper one must be converted into a leader, by pinching off early the tips of the others, beginning first with the upper ones, which will be the strongest, and gradually descending, as the season advances, to the lower ones, which should be left the longest in order to give them the most strength, (fig. *c.*) Six inches of naked stem below the branches should be left, by rubbing off all shoots below; and if in a region liable to deep snows, this space should be a foot, to prevent splitting off the limbs by the weight of the snow, and for which object the tree should not be cut down lower than eighteen inches at the close of the first season. The pruning after the second year's growth, consists in cutting down again the leader for a second crop of side shoots; and these side shoots, and the new leader, are to be treated precisely as those below were treated the year before. At the same time, the last year's side shoots, on the lower part, are to be cut back, (the longest at the bottom, so as to give a pyramidal form,) in order to insure the growth of the buds upon them.

The new side shoots thus caused, are to be pinched off so as to convert them into fruit spurs, except one shoot left on each as a leader, another, if needed, to fill up the space made by the widening limbs. The pyramid may now be said to have been fairly formed; and it is only requisite to continue and prolong the same process for suc-

cessive years. Figure *d.* represents a four year pyramid three times pruned, each section being shown at the figures 1, 2, 3, and the cross lines indicating the place for the fourth pruning. Fig. *e.* represents a perfectly pruned pyramid in bearing.

After the tree has attained sufficient size, its further extension is prevented by pruning back the shoots. If the fruit spurs become too nu-

merous, a part of them are to be pruned closely out, so as to give an even and not crowded crop. When spurs become too old, they may be mostly removed for new ones to spring from their bases.

Some varieties of the pear throw out side shoots spontaneously the first year. Such trees may be treated in a manner not unlike the ordinary two-year pyramid. On the contrary, such sorts as have small or flat buds, may need a more severe cutting back than others, in order to arouse the buds into action and induce them to break into shoots.

Throughout the whole process of pruning and training pyramids, as well as every other tree, the frequent error of allowing the shoots and branches to become too thick and to crowd each other, should be carefully avoided. The size and beauty of the fruit, and its perfection in richness and flavor, where there is plenty of room for the full, vigorous and healthy development of the leaves which supply all the material for the growing fruit, will repay well the labor required for this excellent result.



d.—Four year pyramid.



e.—A perfectly pruned pyramid in bearing.

Horizontal training is effected by carrying out branches to the right and left of the main

stem, and is sometimes exceedingly beautiful and convenient on the borders of walks, on a fence or the side of a building.

All persons intending to cultivate the pear, even if on a limited scale, will be well paid for the trouble by visiting the gardens of those who have had experience, and looking at the forms of the trees and learning the modes of management by others. As much may be gained by observation, perhaps more, than in any other way.

Below we give a list selected by Col. Wilder, and another by Mr. Jaques, of Worcester, both distinguished for their success in pear culture.

COL. WILDER'S LIST.

PEARS.

<i>For three varieties:</i>	<i>For twelve vari^d, add,</i>
Bartlett,	Andrews,
Vicar of Winkfield,	Belle Lucrative,
Beurre d'Arenberg.	Seckle,
<i>For six varieties, add,</i>	Flemish Beauty,
Bloodgood,	Urbanist,
Louise Bonne de Jersey,	Glout Morceau.
Golden Beurre of Bilboa.	

GEORGE JAUQUES' LIST.

PEARS ON QUINCE.

<i>Name</i>	<i>Time of Ripening.</i>
1. Beurre d'Amalis,	September.
2. Louise Conne de Jersey, . . .	Sep. & Oct.
3. Urbaniste,	Oct. to Nov.
4. Duchesse d'Angouleme, . . .	November.
5. Beurre Diel,	Nov. & Dec.
6. Glout Morceau,	Dec. & Jan.

PEARS ON PEAR ROOTS,

1. Rostiezer,	Aug. & Sep.
2. Bartlett,	Sept. (early.)
3. Flemish Beauty,	Sep. (late.)
4. Seckle,	October.
5. Dix,	Oct. & Nov.
6. Beurre d'Arenberg,	Dec. & Jan.

Extending the list, I would add,

7. Madeleine,	August.
8. Andrews,	September.
9. Bell Lucrative,	"
10. Louise Bonne de Jersey, . . .	Sep. & Oct.
11. Urbaniste,	Oct. & Nov.
12. Winter Nelis,	Dec. & Jan.

We observe that in the above lists the old St. Michael is omitted. When in perfection, this pear is scarcely excelled by any that grows or, at any rate, by only three or four varieties. Of late years, we are told that it has succeeded quite well in many localities. In setting even one dozen of trees, we should certainly in-

clude the St. Michael,—known also as the White Doyenne, Virgalieu, Butter Pear, &c.—*New England Farmer.*

Treatment of the Legs and Feet of Colts.

Considering the important functions assigned to the legs and feet, upon which a great portion of the horse's value depends, it is a matter of some surprise that more attention is not bestowed on the subject. There are many breeders who never think of inspecting them till the animals are about to be broken, or, if they observe any imperfections, they leave the remedy to its fate. The legs of young horses may be justly compared to willow twigs; you may train them to almost what form you please.—By careful and judicious treatment many defects may be relieved or corrected, if attacked in the earliest stage, before the parts have assumed an unyielding texture. Many of the imperfections to which the form of the leg is susceptible, may be traced to a portion of the hoof having been broken, worn away, or chipped off. In the event of such an accident, the opposite side of the foot grows more luxuriantly, and the weakest portion, or lower side, having to sustain an increased weight, an uneven bearing for the foot is established. This will assuredly cause the leg to grow crooked, and very probably occasion a turning in or out of the toe. The irregularity of shape is often seen in one leg, while the other is well formed. The pastern joints, in many cases, evince a disposition to grow too upright, or on the other hand to assume too much obliquity. The same principle which accidentally causes a limb to take an unfavorable growth or form may be adopted to restore it to its proper shape, providing it is attended to in time. Thus, if the inside of the near forefoot of a colt or young horse be broken off or worn down, it will cause the animal to tread more heavily on the inside than on the out, and the leg will become bent in consequence. To correct this it is only necessary to reduce the superabundant portion of the foot with a drawing knife or carp, so that the limb may have an even bearing. When the pasterns grow too upright, the heels require to be lowered; and the toes of those which are too oblique must be shortened. The texture of the hoof varies considerably in different animals. In some measure it is consti-

tutional; and it is likewise affected by the state or condition of the land upon which the animal is reared. Before shoes are applied, if the land be dry, the hoof is very liable to be broken off at the edges; and if neglected they will shell off, and frequently occasion soreness—sometimes even inflammation. To obviate this, the part should be rounded a little with the rasp, and the foot dressed with ointment composed of tallow, fat, or lard two parts, tar one part, and treacle half an equivalent of the latter. These being melted together and applied warm on the soles and hoofs of horses at any age, will be found to promote the growth and toughen the parts effectively. If the land be very dry, it is advisable to throw water on some particular spot, where the animals may be induced to stand occasionally in order to keep their feet in a healthy state.

By adopting a regular system, and examining the legs and feet of every horse, young or old, once a month, attention to these little matters becomes habitual. When the vast importance of healthy feet is considered, the trifling item of trouble must necessarily vanish. Incipient lameness is very frequently established at an early period; although it may not be detected till the animal is shod and put to work, when the unfortunate blacksmith, shoes, and all such devices, are summarily condemned.—Thrushes are not unfrequently a predisposing cause of lameness; but they are commonly thought lightly of, unless they give palpable evidence of inconvenience. Exposure to wet and filth will often produce them; and they are in some measure similar to the foot-rot in sheep. At the same time they are more controllable and subservient to appropriate remedies. When the properties of the frog, the seat of this disorder, are considered, no surprise can exist that they should be very frequently the predisposing source of foot-lameness. A thrush may be briefly described as an ichorous, fetid, and corrosive discharge, proceeding from the frogs. When this exists for any length of time in the foot of a young animal, it interrupts the ordinary secretions and development of the sensible frog; by its discharge it promotes absorption, causing the internal part to assume an unhealthy degree of hardness or consistency and thereby affects its elasticity. The frog, it must be observed, is destined to prevent concussion, which in its healthy state it is admirably

bly adapted for; but if it is injured, so that its character and nature is changed, when the horse is put to work soreness of the feet ensues, and often inflammation, which gradually increasing, the animal becomes quite lame, and is therefore nearly useless. As attention to the necessity of handling, and such familiarities as will render them docile and tractable, two important objects are secured.

CECIL.

Mark Lane Express.

Important Questions Answered.

In answering the inquiries of A. Pickett, of Wisconsin, my desire will be to make my replies concise, if not comprehensive. Words without knowledge are only cumbersome, and logic without testimony is as clouds without rain.

1st. Can sheep of the same breeds be improved in quality of wool and form? if so to what extent?

It is a self-evident truth, that all sheep originated or sprung from the same parents, and all the different varieties that exist have been caused by the influence of climate or care in breeding. The sheep of Guinea and Madagascar, in Africa, with their coat of hair; the soft silky fleece of Silesia, the 20 lbs. Hebridean sheep of Scotland, and the Leicester of 300 lbs. all originated from the same family. These differences show the improvement possible both in form and also in quality of wool. To avoid disputes or controversy as to the above, I would call the reader's attention to the manner in which Mr. Bakewell proceeded in forming his noted flock of Bakewells or Leicesters (American Shepherd, page 117.) Also, to the manner in which the fine Silesian or Saxon fleece was obtained, (vide Charles L. Fleishmann's report, in the Patent Office Report for 1847.) This testimony goes to show that sheep have been improved in form and also in quality of wool. My view is that they are still susceptible of additional improvements, both by the effect of climate and care in breeding.

2d. Does climate affect the quality of wool?

Nature's laws are irresistible; therefore climate has a decided effect both upon the quantity as the quality of wool. In their native state in the torrid zone, we see sheep covered with a short stiff hair, whilst those in the frigid zone

are covered with fine hair and with a sub covering of soft spiral wool. The same law governs the whole animal kingdom. The Otter, Seal, and Beaver, of the South, have a coarse thin fur, whilst the same animals in a northern latitude, have their double coat, which they would soon lose if removed to an opposite clime, as did the Thibet Goat that was taken from Thibet to Bengal, (McCullock's Gazetteer, vol. 2, page 922.) Mr. M. R. Cockrell, Tenn., has a superior flock of fine-wooled sheep; they may be kept on high table land, or their retrograde may not be very perceptible, but let his flock be kept in latitude 34 degrees, North, 100 or 1,000 years, and ere that time closed, Nature's laws would predominate and the fleece become thin and of a coarser grade.

3d. Can sheep be acclimated so that all breeds will be equally hardy?

Sheep, if first properly protected, may be inured to a Northern or Southern latitude, and become equally hardy. The fine sheep of Germany originated from the migratory flocks of Spain, and now have become acclimated to 55 degrees north latitude, and are hardy. The Saxons of New Hampshire are equally as hardy and as well formed as the Merino. Also the Goat of Thibet has recently become naturalized to the climate of France. But writers say it is quite certain from the great difference in climate, that the wool will in no long time lose its most valuable qualities. (McCullock's Gazetteer, vol. 2, page 922.—American Shepherd, page 421.)

4th. Does high feeding improve the fleece in fineness?

The hair of wool being porous, high feeding consequently enlarges or makes it coarser, which is the case in all high fed sheep, but particularly so with those whose food is mostly assimilated to fat, as in mutton sheep. As high feeding enlarges, so the reverse has a tendency to lessen or make it more fine.

5th. Taking all things into account, when is the most proper time to wash and shear sheep in from 35 deg. to 40 deg. north latitude?

Climate being so variable in that range of latitude, no specific day could be determined, but an unerring rule may be fixed from the season, by observing the growth of vegetation.

I have thus summarily passed over the questions as proposed, and now repeat my conclusion. 1st. Sheep can be improved in quality

of wool and in form, and have not yet arrived at their highest perfection. 2d. Climate does affect the quality of wool. 3d. Sheep can be acclimated so as to make all breeds equally hardy. 4th. High feeding degenerates wool. 5th. No specific time could be determined, only by observing the influence of atmosphere upon vegetation.

Yours, &c.

JOSEPH PARKER.

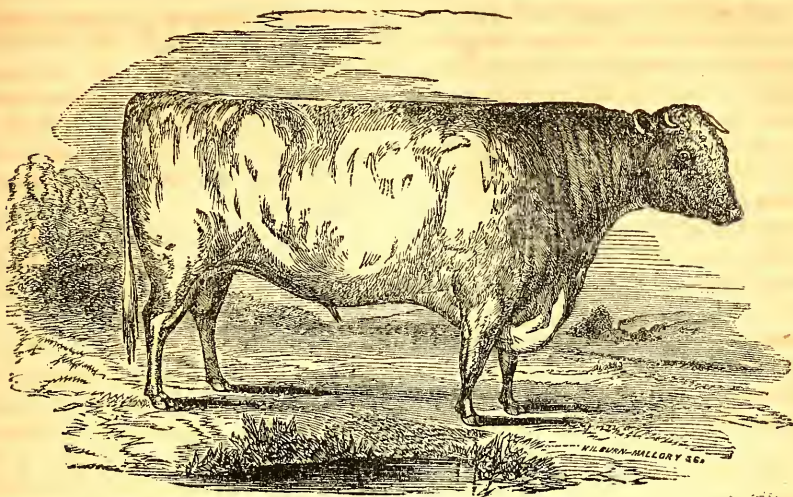
In the Wool Grower.

Hybridizing.

The doctrine of the cross fertilization of vegetables, or the "mixing," as it is termed, of certain varieties, is now too well understood to admit of a question in any mind. We hear farmers frequently contending that potatoes of different kinds will "mix" the first season they are grown in the immediate vicinity of each other. Thus the white and colored varieties, although previously grown at a distance from each other, if planted in alternate rows, or hills, will produce a speckled progeny. But this is not the case. Crossing, in the vegetable as in the animal kingdom, can only be brought about in the natural way—i. e., by cross impregnation or fertilization. All plants and vegetables of the same genus, whose period of blossoming is identical, are susceptible of hybridization in intermixture, by means, and through the agency of blossoms, and in no other way. The pistils of the blossoms of one variety receive the fertilizing dust, or fecundating pollen, from the stamens of the other, and the seed necessarily contains the germ of the variety with which it has become impregnated by the intermixture.

In this way, a good kind of melon, squash, pumpkin or cucumber, often has its valuable distinctive characteristics merged in those of some less desirable kind, and *vice versa*. Indian corn presents many varieties, and intermixtures are consequently frequent, here as in the culmiferous class. The farmer should understand these things, in order to proceed profitably with his labors.

The best thing to give your enemy is forgiveness; to your opponent, tolerance; to a friend, your heart; to your child, a good example; to a father, deference; to your mother, conduct that will make her proud of her son; to yourself, respect, and to all men, charity.



Improved Short Horn Bull.

We are mainly indebted to the Rev. Henry Berry, for just descriptions of this noble breed of cattle. In some localities they are great favorites, and prove good milkers and workers—The colors of the improved short horns are red and white, or a mixture of both; no *pure improved short horn*," says Mr. Youatt, "are found of any other color but those above named." Mr. James Dickson, another competent judge, says "in its points, for quantity and well laid on beef, the short horned ox is quite full in every valuable part; such as along the

back, including the fore ribs, the sirloin and rump, in the runners, flanks, buttocks. and twist, and in the neck and brisket, as inferior parts." Mr. Dickson also speaks of their "exquisitely symmetrical form of body," as going to "form a harmony which has never been surpassed, in beauty and sweetness, by any other species of the domestic ox."

Mr. Culley, another writer states that "the short-horned cows give a greater quantity of milk than any other cattle; a cow usually gives 24 quarts of milk per day."—*N. E. Far.*

Setting out Cabbage, and other Plants.

Last spring we saw a farmer setting out a hundred cabbage plants in the following manner. The plants were pulled up from the seed bed without loosening the ground around them, and as this was pretty compact, three-fourths of the fibrous roots were broken off. He then made a round hole with a stick about half an inch in diameter, thrust in the plant, dropped in earth to fill up the hole, packed it down, poured on a considerable quantity of water, and then covered up the plants with a burdock leaf to keep off the sun's rays, and left them to grow as best they could. We requested the privilege of setting out twenty plants for him, and proceeded thus—

First, we went to the seed bed, and with a flat stick loosened and lifted up a quantity of dirt around the roots, taking care to break very

few of the most delicate fibres. We next went to the cabbage ground, and with a hoe prepared a place for each plant by mellowing and pulverizing the earth several inches in diameter. We scooped out a large hole with the hand, deep enough for a plant, and set it in carefully, with considerable loose earth still clinging to it. The roots were left spread out just as they had grown, finely pulverized soil was then sprinkled in to fill up the hole, and carefully pressed down around the plant. We then added about half a pint of filthy water from the swill-pail, and requested that the plants should be left without any protecting covering. Our farmer friend said he could never spend so much time with a few plants. But mark the result.

During the latter part of summer we visited the "cabbage patch," and found that of the

twenty plants, one had been injured by a careless blow from the hoe, and one had grown feebly, while seventeen of them bore large heads of cabbage. Out of the eighty other plants set out at the same time, in the same soil, fifteen only had large heads, twenty-nine bore heads of medium size, fourteen had barely lived and were not worth harvesting, while twenty-two had not survived the transplanting.

The next best preferable method we know of to set out cabbages is, to first grout them.—*Am. Ag.*

From the New England Farmer.

GREEN CORN FOR COWS

Allow me to make a few statements through the columns of your paper, in regard to what is so commonly known in Massachusetts and in parts of N. H., yet so seldom practiced in this section of Vermont and many parts of Massachusetts, even—the practice of supplying cows with a cheap and valuable kind of food at that season of the year when drought or rain, grasshoppers or none, the freshness of June feed is past, and common cows and common pastures alike, “begin to shrink.”

Most farmers in this vicinity consider it one of the “*necessary evils*” that, during August and parts of the adjoining months, their cows should be either half-starved or allowed to roam over the oft-trodden pastures, and be content with a supply of withered grass, or browse from the neighboring woods. The result is, of course, a *scanty abundance* of milk, butter and cheese, and instead of the cows gaining in flesh and preparing for their winter service, are reduced in flesh, and before dog-days are past, too many of them become “spring poor,” and when they come to the barn for winter, look so much worse for the “wear,” that one must conclude that the whole summer’s feed has “*run to milk* and not to flesh.”

In the spring of 1852, two bushels of the *southern yellow-flat* corn were procured and sowed in the usual way, i. e. in drills 3 feet apart—manuring well, and taking care that the corn be so thick in the drill that no stalk should grow more than an inch in diameter. The season was unusually dry, and some farmers were obliged to feed out hay to their cows. Those who were prevailed upon to “try” the new notion had corn in plenty from the first of August to the 20th of September.

The result was, this “book farming” plan met with universal approbation, and in the spring of 1853, the procurer was requested to supply his neighbors with seed to the amount of *thirty bushels*. Most of this was sowed within two miles of this village.

After this fair trial during the season past, our farmers estimate the value of this feed to each cow, to be from three to five dollars, over the usual practice of *grass* feeding only. This is made up by the milk and condition in which the cows are found when coming to winter quarters.

During the present month, those who wish for corn are sending in orders for their supply, and if we may judge by the present amount called for, full 50 bls. will be sown in this vicinity the present season.

As dry fodder, we think a larger amount may be raised on an acre than of any other substance we have yet been acquainted with. I have cured the growth on six square rods, and fed one medium size cow, giving her all she would eat, (after cutting with a straw cutter) in thirty-seven days. Thus the crop from one rod kept the cow a little more than one week.

The difficulty in curing will be an objection to its general use on a large scale, but as *green* feed we know of nothing its equal, when compared with the expense of raising.

The question is often asked, “Why is not our *common corn* just as good?” An equal amount *is* as good. But the quantity on the same ground is very much less than of the southern, and it will not reach a size fit for cutting as early.

Our garden *sweet corn* is raised in some places with success, and but for the trouble of preparing seed for future use, would be more valuable for the latter part of the season.

I prefer stabling my cows through the summer (thus saving all the manure, both solid and liquid) and then feed them in the morning.—In this way cows will not acquire the “*habit*” of waiting around the gate in the pasture, in the latter part the day, as when fed at night.

Plant about May 10th, June 1st, and June 15th, so as keep a *tender* supply from July 2d, through the month of September.

G. F. N.

Randolph, Vt., April 15th, 1854.

To govern with judgment is to govern with justice and wisdom.

Agriculture in Nova Scotia.

We are under obligations to Mr. Brown, of the firm of Bessonett & Brown, Halifax, for a printed account of the "Agricultural Exhibition of Nova Scotia" in October last, by which it appears that the occasion was one of great interest. Some 7 to 10,000 persons attended the show, and the stock, grain, vegetables and articles of home manufacture were numerous. The spirit manifested must mark out important results in the agricultural operations of the Nova Scotians. The words below are from the "Speaker's Address," whose name is not given. Besides this, however, several excellent speeches were made on the occasion.

"Look around upon those tables, and see what Nova Scotia can do to reward the industry of her sons—here are proofs of luxurious vegetation, of which any country might justly be proud; here is a field for generous rivalry which will advance the interests and elevate the character of our common country. Agriculture is no mean or vulgar pursuit—it taxes the highest efforts of the intellect and brings into play all the knowledge which science has revealed to man. Cross the Atlantic, and you will find farmers of the Mother country not inferior in point of intelligence to any people in the world. There you will find the noblest and most cultivated minds turning from the pursuits of the Statesmen—or law—or physic—and devoting themselves to husbandry; and it is a well known fact that all the American residents who have survived the toils and dangers of that eminent station, and many of the other distinguished public men in America have passed the evening of their days in superintending the operations of the plough.—In our own country Farming is getting more and more to be a favorite pursuit, and is attracting the regards of men of opulence and leisure.—*New Eng. Fur.*

Planting Small Potatoes.

We have given no little attention to this subject for many years, and have settled the matter conclusively in our minds, that it does not pay to plant small feed. For fifteen years we planted the same nameless variety, on the same soil, and at the end of that time found no deterioration in the quality or yield, but rather

an improvement. We have invariably thrown out from our seed all potatoes less in size than a hen's egg, and also rejected these overgrown, pithy, or irregular shaped.

In some favorable seasons, and on particular soils, those purchasing and planting the small potatoes which we have rejected, have raised crops equal to or more prolific than our own; but one year with another, we have averaged thirty to fifty per cent. better crops of good potatoes, than our small potato neighbors.

What we have found true in regard to potatoes, we have also, by long practice, proved true in regard to other kinds of seed. Our plumpest and earliest grains have always been reserved for propagation, and our neighbors can testify that our practice has been attended with good results.—*Am. Ag.*

Farmers.

Adam was a farmer while yet in Paradise, and after his fall, commanded to earn his bread by the sweat of his brow.

Job, the honest, upright and patient, was a farmer, and his endurance has passed into proverbs.

Socrates was a farmer, and yet wedded to his calling the glory of his immortal philosophy.

St. Luke was a farmer, and divides with Prometheus the honor of subjecting the ox for the use of man.

Cincinnatus was a farmer, and the noblest Roman of them all.

Burns was a farmer, and the Muse found him at the plow, and filled his soul with poetry.

Washington was a farmer, and retired from the highest earthly station to enjoy the quiet of rural life, and present to the world a spectacle of human greatness.

To these names may be added a host of others who sought peace and repose in the cultivation of their mother earth; the enthusiastic Lafayette; the steadfast Pickering, the scholastic Jefferson, the fiery Randolph, all found an Eldorado of consolation from life's cares and troubles, in the green and verdant lawns that surrounded their homesteads.

Be wise, for in gaining wisdom you also gain an eminence from which no shaft of jealousy or malice can hurl you.

Black Warts—Whitewash.

Black warts on plum trees should be cut out and burned. Should they re-appear, repeat the operation till the evil disappears. But this course is not always effectual. We knew a tobacco chewer to cut a large wart on a plum tree, and taking the quid from his mouth, warm and juicy, applied it to the wound, and on that spot there was no gathering of the wart afterwards.

WHITEWASH.

Remember that whitewash is one of the finest things in the world to promote cleanliness and health. Old buildings, the coverings of which may not be worth the expense of a coat of paint, and which are so unsightly that you are justly ashamed of them in their present condition, may be made to appear almost like new work by the application of a few coats of whitewash. Fences around the house should be washed or painted, also the interior of all out-buildings, barns, sheds, hen-houses, &c., and the walls of the cellar, as well as the overhead ceilings of the rooms in the house.—A liberal use of this sanitary material is of great consequence; lime being a powerful disinfectant, and highly efficacious in promoting health at all seasons of the year. Powdered lime sprinkled over the bottom of the cellar after the roots are removed in the spring, and repeated occasionally through the season till cold weather, will prevent the unpleasant odor ordinarily engendered by warmth, and keep the atmosphere pure and sweet.

SALT AND ASHES FOR SHEEP.

Have a trough in your sheep shed or pasture, and keep it well filled with a mixture of salt and ashes—one part of the former to three of the latter.

CHARCOAL FOR SWINE.

Throw to your swine, occasionally, a handful of charcoal. Breeding sows, and those with litters of pigs, will not only eat a little charcoal, but like old bones, and will sometimes eat a bit of lime mortar as large as a hen's egg—they should, therefore, come to the ground every day.

Working oxen that are well tended now, will be far more serviceable for the spring work, than those that are neglected; so, to have good butter from cows in summer, they must enter the pasture in thrifty condition.

Do S.ils Lose their Manures by Leaching?

Not often. 'Tis only the coarsest sands or gravels, and such as are almost wholly destitute of clay or vegetable matter, that permit manures to pass downward through them. Nearly all soils absorb the valuable portion of the manures which have dissolved by rains after application, before it has descended five inches. To be satisfied of this, one has only to examine the soil at the bottom of a barn-yard, and he will find a few inches only that have become at all charged with the fertile extract of the superincumbent manure.

The true source of escape is by evaporation. If only partially buried, or the soil is principally silicious and coarse, the ammonia, carbonic acid, and other fertile gases, which may have been developed by decomposition, or dissolved by rains, may evaporate from the surface or through the loosely associated particles of the soil, and pass off into the general storehouse of the atmosphere. And it is in this way nearly all manures escape from the soil.—A perfect correction of this defect, is to bury the manures at a sufficient depth, and keep the soil above, well supplied with vegetable water, both living and dead.

We have seen the principle above asserted, most fully proved by the appearance of a muck heap made by compounding fish with loam.—When made with a single layer of Manhadden or Moss Bankers in the middle of a heap four feet high, the oil and other fertilizing matters dissolved in the decay of the fish, has been found to mark distinctly to the eye and smell all the superincumbent mass of earth while it had not reached four inches below it. A clear understanding of the road manures travel, may aid many a farmer to arrest their progress, who would otherwise spend a large amount in unavailing efforts to secure them from their fancied escape in another direction.—*N. Y. Agricultor.*

The Ash tree, three hundred years old, under which Sir Walter Scott used to cook the proceeds of his fishing excursions on the Tweed, has been cut down to make way for a railway.

The choicest pleasures of life lie within the range of moderation.

From the Northern Farmer.

Another Time Will do as Well.

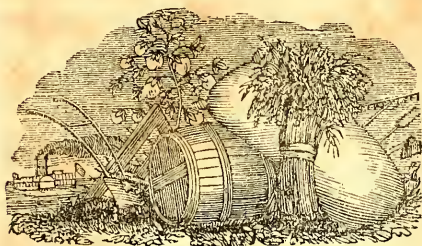
It is a common saying, that all the operations of nature go on regularly without delay. If we hear a farmer or mechanic repeating this saying, "that to-morrow will answer the purpose just as well as to-day," we may rely on it that such persons will never prosper in their business. The farmer that never thoroughly repairs his fences, till after his cattle have repeatedly trespassed upon his crops, or never has his plow or harrow ready for use, till after the proper time has passed, practically adopts the principle, that another time is as good as the present. The patient that is confined to his bed by sickness, and neglects to call a physician till after the disease has become matured and threatens death, is another procrastinator, and advocate of the doctrine, that future time will be available to a present purpose and benefit. The student that neglects his books from day to day, and passes his time in indolence, expecting by future diligence in study, to be distinguished at the bar or in the councils of the nation, is practically following out the same absurd principle, and indulging similar vain anticipations. The man that neither plows his ground, nor plants and sows in the proper season, because it is a little too hot or cold, a little too wet or dry, but fancies that another day, or week will answer as well, need not anticipate a bounteous harvest. In all the departments of business—in the cultivation of the soil, in the mechanic arts, in the successful prosecution of study, there is a *proper time* in which these employments are to be carried on; and the time being neglected, no future period will answer as well. There is, in almost every kind of business, a *crisis* in which "time must be seized by the forelock," and the motto be, "now or never." The farmer may, through indolence neglect to provide fuel for the winter, or to provide proper shelter and food for his cattle, or repair in summer his fences and his houses; the consequences of course will be disastrous to himself. He must experience the ills resulting from his negligence and procrastination.—If his house, or barn needs repairing, the proper time to do it, is in the summer. But as he is a procrastinator in everything, so he defers this work to the time of the autumnal rains, which beat into his chambers to the great in-

jury of his furniture, or into his barn to the great detriment of his hay and grain. Frequently, also, in traveling you will notice the houses of some people, with many panes of glass broken out; the consequence is, that much cold and discomfort are experienced within. But all this is the result of the absurd doctrine, that "another time will do as well as now." From this absurd principle there often arises a great want of economy and good management in the affairs of a family. Some families are always behindhand in all their domestic matters. They are late to rise in the morning; the bright sun, as he looms up from the Eastern horizon they never see. Long after he has shed his benign rays on hills and over valleys, they are still locked in slumbers. The breakfast is belated, the morning is wasted, the day is gone before its proper work is accomplished. Nothing of course is done in its proper season. Disorder reigns throughout the domestic concerns; and tardiness and negligence are visible in the management of the farm. There is no economy practiced within doors or without. The children are unprovided with shoes till after the snows of winter have come. The horses are not stabled till after they have suffered from the cold autumnal rains and frosts. A want of thrift is every where visible. Now all this arises from the fact that this family have got into the habit of not improving present time and opportunity, but deferring every thing to the uncertainties of a future time. Many of the above remarks will apply with equal propriety to persons in other occupations of life.

SENEX.

To prepare land for the osier, or basket willow, plough deep, and prepare it as for corn; set the cuttings in rows, two and a half feet apart, and the cuttings ten or twelve inches apart in the rows. Stick them nearly perpendicular, leaving one or two buds above the ground. Cultivate them like corn, the first year, to keep them clear of grass and weeds,—and then let them go it. When prepared, they are worth from six to eight dollars a hundred pounds.

PREPARATION FOR CLEANING TIN COVERS.—Boil rotten-stone and a small quantity of prepared whitening in sweet oil for two hours, until it acquires the consistency of cream.



The Carolina Cultivator.

RALEIGH, JULY, 1855.

TERMS.

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Solids and Fluids.

WE endeavored, in the last number of the *Cultivator*, to present a clear, general view of the chemical relations of the soil to its vegetable productions. Let us now continue the consideration of the subject, in the same plain and unpretending manner. The soil furnishes to the plant those chemical elements upon which it subsists. These elements, however, exist in a solid form—in a state of chemical combination, which, so long as it continues, must render them useless to the plant. Gypsum, for example, in the shape of a hard rock, or even when reduced to powder, could never enter into the substance of a growing plant. Guano, in its solid state, never penetrates the delicate radicles of the grain to which it is applied. In fact the roots of plants are so constituted that solid food cannot possibly pass through the innumerable little mouths by which their nutriment is received. The nutritious elements of the soil must, therefore, be reduced to a fluid state, before the plant can derive any benefit from them. They must either be dissolved in water, or expand into gas, in order to reach

that internal system of appropriation with which the plant is endowed.

The process which goes on in the soil, during the growth of plants, is evidently a complicated series of transformations. Many different chemical reactions occur which are necessary to reduce the nutritious constituents to the required solubility. Frequent exchanges of partners take place among the elements or compound agents present, and some of the most beautiful illustrations are displayed, of the versatile power of nature. The results, however, are sufficiently simple. A few important solutions are effected, several well-known gases are set free, and the young plant is furnished with the milk and pap, upon which it is destined to grow.

It is not only necessary that the soil should contain certain materials from which oxygen, carbon, nitrogen and other elements may be obtained, but that there should be present a sufficient amount of moisture to convey them in simple or compound form to the growing plant. A perfectly dry soil will not sustain vegetable life, no matter how rich it may be in the elements of fertility. Water itself enters very largely into the substance of every organized body. But it acts an important part indirectly, by promoting those chemical changes which lead to the evolution of gas. Hence the dependence of vegetation upon the character of each season. The younger the plant, the more water it requires; and when a growing crop is approaching its maturity, it is plain that useless weeds if allowed to grow up along with it, must, by their superior power of absorption, rob it of much of that nutriment which exists in the soil.

How far oxygen, hydrogen, nitrogen and carbon, are indebted to water for the means of conveyance into the interior of plants, cannot be positively ascertained. One thing is certain, that the great bulk of every species of crop is composed of these four elements variously compounded. The three first are gases. The latter is commonly seen in the form of charcoal. Even this, however, must be converted by combination, into a gas. The operations, therefore, which nature carries on in the soil during the process of vegetation, are all directed to the simple object of furnishing those elements in a fluid form to the roots of the plant. Every kind of manure, mineral, vegetable, and animal,

must contribute directly or indirectly to this result, in order to answer the ends for which it is used. Agricultural Chemistry teaches us what those changes are which take place in the soil. It shows us that the four principal elements are present in good barn-yard manure, and that lime exercises a powerful influence in reducing the manure to its elementary state. It teaches us that charcoal in the soil, though one of the most unchangeable of substances, is there converted into a gas which has more to do than any other with the growth of the plant. It shows how guano which is continually exhaling ammonia, a compound of hydrogen and nitrogen, thus furnishes a large amount of those two important materials in an available state. In short, it is the province of this science to teach us, not merely what are the most nutritious ingredients, but how they are best prepared for use.

The processes which transform one chemical compound into another, in a fertile soil, are too complicated for these pages. Were we ever so well prepared to explain there, it would not comport with our design to write an essay on the subject. We shall content ourselves with a few leading facts, which may serve to illustrate the importance of this kind of study to the farmer and the planter, and we sincerely hope that our readers may be induced by our brief observations to cultivate it with more spirit and zeal than they have heretofore done. We shall continue the subject hereafter.

✂ In the "Southern Farmer," for June 9th, we find the Report of James C. Bruce, Esq., President of the "Union Agricultural Society," in which it is announced that, "Mr. A. C. Morton, has been appointed an Agent to visit the most important sections of Virginia and North Carolina, within the jurisdiction of the Society."

It is not our purpose to criticise the action of Mr. Bruce, in this matter, nor do we complain of the policy adopted by the Union Agricultural Society. We feel it, however, to be a duty to appeal directly to the *State pride* of our citizens, not to withdraw their influence from our own State Society. North Carolina should not be regarded, especially by her own sons, as an appendage to the Old Dominion. It is absolutely mortifying to see her claimed as a part of the jurisdiction of an association in another

State, evidently founded for the benefit of one of her commercial cities,

Comparative Results.

We find in the "New England Farmer," for June, two very interesting and instructive reports, communicated to that paper, by Professor Nash, of Amherst, Mass. We are not informed particularly as to the chemical character of the soil to which they refer, and do not know, therefore, whether the results are entirely conclusive; but the reports as published certainly furnish a very interesting lesson to the practical farmer. We have always thought that if people were as willing to spend labor in making manure, as they are to spend money in importing it, the soil might be enriched quite as readily from our own resources as from the Pacific Ocean. The reports themselves are of course fictitious.

A REPORT.

The past five years, we have cultivated two adjacent acres, similar in quality, an ordinary loam, as follows: 1856, to corn; 1857, to oats; 1858, to clover; 1859, to clover again, and 1860 to corn.

One acre has been dressed each year with three hundred pounds of Peruvian guano, costing on the ground, nine dollars. The other has been dressed with four loads of manure, composted with ten loads of muck, five bushels of oyster-shell lime, and two bushels of plaster; the lime and plaster put with the muck in the fall, and the manure added in the spring. The cost of the latter dressing has been a trifle more than that of the former; but, as the labor has been done at times when our teams could not well be employed otherwise, we could about as readily furnish the compost as to pay cash for the guano.

Results.

	On Guanoed.	On Mucked.
1856. Corn and straw, worth \$50.....	\$40	
1857. Oats and straw,.....	30	30
1858. Clover, hay and feed,....	35	
1859. " " ".....	40	
1860. Corn and straw,.....	30	60

\$165 \$205

JAMES & JAMESON.

Jamesville, Oct. 20, 1860.

ANOTHER REPORT.

Since 1860 we have cultivated the same acres mentioned in our report of that year, dressing each acre, in 1861, with ten loads of barn manure composed with ten of muck, in 1862 the same, in 1865 with 30 loads, half manure and half muck, no dressing the intervening years.

Results.

	On Guanoed.	On Mucked.
1861. Corn and stover, worth \$40.....	\$70	
1862. Oats and straw,.....	35	40
1863. Clover hay and seed,.....	35	40
1864. " " ".....	30	40
1865. Corn and stover,.....	60	70
	200	260
Add former results,.....	165	205
	365	465

Difference \$100, and the guanoed land not yet fully restored.

JAMES & JAMESON.

Jamesville, Oct., 20, 1865.

THE STABLE.—“The merciful man is merciful to his beast.” That horses are often very unmercifully treated by their owners is generally admitted, but our criticism is for the most part confined to the cruelty with which they are overworked and half-starved. The importance of judicious attention to the stable, is seldom considered. The injuries resulting to the eyes and feet of horses, from neglect in this respect, are almost incalculable. Ophthalmia is ascribed, in nine cases of out ten, to accident, or some mysterious “weakness,” and there are various absurd theories to account for diseases of the hoof and legs; and yet we venture to say that, in a majority of instances, these diseases are directly or indirectly induced by the dark and dirty stalls to which they are confined.

The eye of the horse is as tender as that of man. What wonder is it, then, that when this noble animal is cooped up for days at a time in a dungeon, with a rack full of dust at his nose, he comes out into the glare of day with an eye that cannot bear the light of the sun, or that he starts in alarm at every object before him! A child will do the same. In a strong light to which the eye is unaccustomed, nothing can be distinctly seen, and the imagination, whether of the child or the horse, invests every thing obscure with the mysterious and the terrible.

A distinguished veterinary surgeon ascribes those inflammatory diseases of the feet of the horse, which render so many fine animals useless for life, to the accumulations of hot manures in their stalls, and the caustic nature of the ammoniacal vapor which it exhales. There can be little doubt of the truth of this suggestion. The hoof buried for many days and nights in a hot-bed, must necessarily suffer

from the heat and the irritation of the ammonia, and it would be surprising if they were not injured.

In view of these obvious considerations, we would urge upon our farming friends, and all others who keep valuable horses upon their premises, the importance of giving them a plenty of light in their stables, and of removing from the stalls, carefully and regularly, the manure that is apt to accumulate under their feet. Let them stand high, dry, and cool, and let the hoof be frequently cleaned, so that the pure air may reach the tender surface of the frog. This sort of attention will certainly pay well for the trouble it may cost.

THE WILLOW.—Dr. C. W. Grant, of Newburg, N. Y., a successful cultivator of the willow, recommends three varieties. 1st, *Salix Purpurea*; 2nd, *Triandria*; 3rd, *Forbyana*, as a complete assortment for basket makers, and adapted to the Southern States. He says,

“As a marketable commodity, nothing will compare with them in profit. In England the net cost per acre is from one to two hundred dollars, and frequently two hundred and fifty dollars, and although the business of the willow culture is extensively engaged in from the peasant to the lord, the Duke of Bedford having a plantation of one hundred thousand acres; the demand still keeps ahead of the supply.

There are annually imported into the United S., some four millions of dollars worth of this article, and it sells some 20 per cent higher here than in Europe. Statements have been published of profit as high as \$330 per acre, in the State of New York, from willow twigs.

From 10 to 15,000 cuttings are required to the acre, and as to the best soils, culture and management generally, they may be all obtained from Dr. Grant, who will also furnish cuttings of the aforesaid three varieties at \$5 per thousand, making a discount to those wishing to plant by the acre, or to make a business of this culture. He will, besides, give such directions from time to time as will assure success.—*Am. Cot. Planter.*

We are inclined to think our southern planters would find the cultivation of the willow profitable in various ways. The manufacture of baskets is useful employment for extra hands on the plantation, and we believe would furnish the means of livelihood to thousands of the white population, if they were only acquainted with the art.

Farmers, prove true to your calling.

THE CHEAPEST FOOD.—The New York *Tribune*, in view of the scarcity, present and anticipated, in an article headed, "What to Eat and how to cook it," recommends *oat-meal* and *white beans* as the most nutritious and cheapest food for the poor. Corn meal and hominy, are also considered comparatively cheap, but are objectionable on account of the fuel required to cook them in the cities. Carrots are the cheapest roots, according to the same authority. We doubt some of the *Tribune's* calculations. They are certainly not adapted to our latitude, but one thing is certain, that the times require a close attention to this subject, and that every farmer should endeavor to raise as much, and economise as much as possible.

We are indebted to C. L. FLINT, Esq. Sec. of the Mass. Board of Agriculture, for a pamphlet of 200 pages, entitled "Second Annual Report of the Secretary of the Board of Agriculture of Massachusetts." It is one of the most valuable documents recently issued, abounding in important and interesting statements, general and detailed, in relative to the state of the farming interest in the Bay State.

ESSAYS AND NOTES ON AGRICULTURE, by EDMUND RUFFIN. *Richmond, Va.*, J. W. Randolph.

The name of Edmund Ruffin, is indissolubly associated with agricultural improvement. The present collection of his essays, is due to the solicitation of the Publisher, that he would select a number of his original papers for the purpose. The result is a handsome volume of 407 pages, replete with sage practical observations and suggestions, derived from long and careful experience. The subjects of these essays are sufficiently various to render the book interesting, and yet the individuality of the author, is manifest in their selection and treatment. Much credit is due to the publisher for the creditable style in which the work is issued, and we doubt not it will have an extensive sale. In the South, especially, Mr. Ruffin's name will give it general popularity.

We are also under obligations to Mr. Randolph for a copy of the "Plantation and Farm Instruction, Regulation, Record, Inventory, and Account Book," for the use of managers of large estates. By a Southern Planter. It is published by J. W. Randolph, Main Street,

Richmond, in quarto form, on a plan well adapted to the objects in view, being filled with blank pages with marginal directions, for the various departments of business on a plantation. We find enclosed a copy of the Premium Essay of Edmund Ruffin, Esq., on Agricultural Education. Second Edition. The reputation of Mr. Ruffin as the pioneer of Agricultural improvement in the South, renders any commendation of this recent production of his pen unnecessary.

For the Carolina Cultivator.

The Emigrant.

The *Carolinian*, after much reflection, and some forebodings of ill-luck, finally makes up his mind to sell the *old Homestead*, and move to Texas. The old place of his birth is very dear to him, and he hates much to leave it, but, either necessity, or a roving disposition, and desire to see a new country, and better his fortune, induces him to move. Besides, his neighbor, Jonny Woods, moved there the year before, and has written to him to move out, giving a flattering account of the country, and the fine prospects for making a fortune. Many a poor man leaves the old home, without knowing whither they are going to, as they have not time and money to spare to visit the country and select a home, and they can do as their neighbors did before them. But, my friend, Sammy Johnson, of Carolina, has heard, from Jonny, and learned that Texas is a fine country, full of game, and contains plenty of rich, cheap land. His fertile imagination draws a fine picture of Texas, and he sells out, collects all the money owing him, hitches up his team, and starts to Texas. He barely makes a living in Carolina, by honest industry, but he is going to a *new country* to get rich in a few years.

Being ignorant of the roads he travels, of the countries he passes thro', of the price of provisions on the road, and the distance to the new country, he has many trials on the route, and after two months of travel, he reaches the *eldorado*, nearly starved, and worn out in mind and body. His old friend, Jonny Woods, gives him a hearty welcome. Two or three days are passed chatting about the old country, the trip, the new country, and the game. They take a hunt, and kill as many deer and turkeys as they desire. Jonny is pretty well fixed in his

new cabin, in Texas, and to all appearances, made a fine crop of cotton and corn.

Sammy begins to recover from the fatigue of his journey, and as Christmas is fast approaching, he becomes impatient to locate himself.—Jonny sends for *Squire Jones*, the *great land owner*, from whom he made his purchase of land. Squire Jones soon arrives, and is very jovial, polite, talkative and learned about the whole of Texas, and here, he says, is the *garden spot* of the whole country. The Squire is very eloquent, and gives a beautiful description of the country, the advantages to be gained by settling there, as soon as possible. Everything seems new, and presents a strange appearance to Sammy. He listens to the *marvelous speculators' nights' entertainment*, stories, with astonishment, and believes everything said. His friend Jonny, concurs with Squire Jones, and urges Sammy to close a trade with the Squire, immediately. After some hesitation, and a nights' sleep on squire Jones' liberal offers of land, and consultation with his wife Sally, Sammy concludes to buy land. The purchase is made, and as he wants elbow room and stock range, he buys a good deal of land, as he gets it cheap, on a long credit.

The notes are executed for the purchase money to be paid in three annual instalments, with interest, as the squire requires; who often makes the location of land, and the term of purchase for the settler.

The Emigrant being now a land owner, takes steps to become a settler. He feels more ease of mind, and looks around and contemplates the scene. Jonny's tall cotton and corn stalks, the luxuriant prairie grass, the strange forest, the gentle deer and turkeys, the immense herds of cattle roving over the wild woods and extensive prairies, bewilder his mind, and he is delighted. He congratulates himself on having been so fortunate as to make such a fine location of lands in such a great and rich country. His imagination becomes excited, he feels like a new, and a more independent man, than ever he did before, and he fancies a fortune is close at hand for him.

He selects a spot for a cabin convenient to water, either a stream, a lake or a spring. He works hard, fells the trees, and collects his neighbors to help him raise his cabin, which being completed, he fences his yard, his garden and lot for his horse. He lays out all the mo-

ney he has for provisions, or buys them on a credit, at the nearest store. Winter is nearly gone, and not a lick struck on his *new ground*, on which all his hopes rest for a crop, and the means of support, and the payment of his debts. Field work commences, and *Sally* and the *oldest* boy, are called out to grub and burn brush. The trees are cut up, and rails mauled, and the neighbors again called to help him roll logs.

Which job being done, he fences his little field with a low fence, as stock seldom intrude into fields in new countries. He commences plowing now. The virgin soil, requires but little preparation, says Jonny, and the Scooter-plow jumps about amongst the roots and makes a hole here and scratches a mark there. The seed are planted and about half covered by the first of May, and Sammy has done well.

N. T. S.

June, 1855.

(To be Continued.)

From the Southern Cultivator.

Feeding Sheep on Cotton Seed.

MESSRS. EDITORS:—Experience and observation has prepared me to believe that sheep which are fed on cotton seed are more subject to the rot and other diseases than when fed on other food. For the last eight years my sheep were wintered entirely on Cotton Seed. During the most of that time they were affected with a most distressing cough and running at the nose, which foretold their condition: and after they were turned to grass in the spring, running at large, they continued to cough and run at the nose, and when the weather became warm, would sicken and die in large numbers. This season I have fed entirely on fodder and oat straw, which they eat kindly, and in keeping them in this way, I find they are healthy and sound, free from cough, and as clean about the nose as a goat.

Now, Messrs. Editors, if cotton seed feed produces the above stated facts, cannot some of your numerous correspondents, or Dr. Lee, enlighten the readers of the *Cultivator* on the subject.

I am, with respect,

Yours, &c.,

AARON W. GRIER.

Raytown, Ga. Feb. 1855.

Ladies' Department.

Snuff Rubbing.

A special correspondent of the Cincinnati Times, writing from Georgia, speaks in the following terms of the habits of the Southern ladies using tobacco. His statements may be true but we are not willing to believe them:

Being obliged to close this communication at short notice, I will conclude by speaking of a deleterious and really filthy habit that prevails—among whom do you suppose? Why, among the Southern ladies! Not confined to the poor or ignorant classes, but practiced with equal diligence in the cabin and the parlor. Great efforts are made to keep the extent of this habit secret. It is never mentioned in conversation when gentlemen are about. It is not spoken of and discussed in the papers. But if there was ever a subject worthy of the unmitigated condemnation of the public press, and the special and undivided attention of Women's Rights Conventions and Reform Societies, it is the sickening, dirty, poisonous practice of "*snuff rubbing*," (as it is termed,) which prevails to an alarming extent in every Southern State, and is gradually working its way westward.—It is only another name for the old custom of tobacco chewing, against which the fair sex generally are so properly opposed. Yet, when compared with "snuff rubbing," tobacco chewing is a clean and healthy practice! The modus operandi of this unwomanly custom is as follows: Strong snuff or powdered tobacco is provided in a box, and then a bit of hickory wood is splintered and chewed until it becomes a soft, fine brush. After being well moistened in the mouth, this brush is dipped into the snuff-box, and then sucked or rubbed about the teeth, gums and over the tongue, until intoxication, or a sort of insensibility is produced. Some fastidious ladies discard the plain hickory, and use a tooth brush; others simply dip a finger in the snuff, and in that manner convey it to their mouths. This habit grows upon a person like the use of opium or brandy, and is equally disgusting and pernicious to health. Still, it is encouraged, and, as I said before, prevails among all classes, white and black, rich and poor, unless indeed they are too poor to buy tobacco.

At parties, snuff-rubbing forms a portion of the ladies' entertainment, very often, and women offer their snuff-boxes and brushes to visitors as politely as one smoker offers another a cigar, or one stranger asks another for a "chew of tobacco." In many of the Southern churches, the ladies side of the house is as badly stained with tobacco as the gentleman's.

An eminent physician with whom I conversed on the subject, assured me that this "snuff-rubbing," was a more dangerous and filthy habit than either smoking and chewing, and was the cause of an untold amount of disease and death. "And," he remarked, "the first ladies of the country, married and single, 'rub snuff' until it becomes an infatuation that they cannot resist." I conversed with this gentleman upon the practice, its effects, &c., for several hours, and was utterly confounded by his statements. He referred me to any retail store to find snuff neatly put up in pound bottles on purpose for the fair consumers. And in country stores it is a common practice to keep a large box nailed to the counter, that lady customers may partake freely without charge! To corroborate these statements, I would call upon any man who has spent a month or two in the South. The habit is fixed, is widespread, it increases with fearful rapidity, and it should be exposed and exterminated.—*Ind. Farmer.*

◆◆◆◆◆
TO PREVENT METALS FROM RUSTING.—Melt together three parts of lard and one part of rosin in powder. A very thin coating, applied with a brush, will preserve Russia-iron stoves and grates from rusting during summer, even in damp situations. For this purpose, a portion of black lead may be mixed with the lard. The effect is equally good on brass, copper, steel, &c. The same compound forms an excellent water-proof paste for leather. Boots, when treated with it, will soon after take the usual polish when blacked, and the soles may be saturated with it without danger of soiling the floor, as it does not rub off.

◆◆◆◆◆
CURE FOR A COUGH.—Marshmallow root and liquorice root, half an ounce each, boiled in a pint of water till it (the water) is reduced one-third, is good for a cough. Half a teacupful should be taken three times a day.

THE PERFUME OF FLOWERS may be gathered, according to the Scientific American, in a very simple manner, and without apparatus. Gather the flowers with as little stalk as possible, and place them in a jar, three parts-full of olive or almond oil. After being in the oil twenty-four hours, put them into a coarse cloth, and squeeze the oil from them. This process with fresh flowers, is to be repeated according to the strength of perfume desired. The oil being thus thoroughly perfumed with the volatile principle of the flowers, is to be mixed with an equal quantity of pure rectified spirit, and shaken every day for a fortnight, when it may be poured off, ready for use. As the season for sweet-scented blossoms is just approaching, this method may be practically tested, and without any great trouble or expense. It would add to the cultivation of flowers.

Miscellaneous.

From the Northern Farmer.

The Cultivation of Tobacco.

Mr. Editor:—Having had some years experience in the cultivation of tobacco, and having made many observations in regard to it, I send you a few remarks for publication.

Tobacco is not adapted to either a very warm or a very cold climate, nor to a low, wet soil.—The reasons are as follows:—In very warm climates the ravages of insects upon the plants are too great to render their cultivation profitable; and, moreover, the plants grow so rapidly in such climates, that they are often affected, with what is called “hollow stalk,” or “rotten stalk.” There are various other reasons why tobacco will not flourish in very warm climates, which my limits here will not admit of stating in detail. One reason why it is not adapted to a cold climate is, that it requires a long time for the seed to germinate, and the summers are too short to give the plants sufficient time to mature properly.

The preparation of the land to receive the seed is the first object of attention. Select a piece of ground suitable for the growth of the plant. If the ground should gently slope toward the south, and consist of a black thick

soil, with compact red clay, it would be preferable. Whenever the ground is dry enough in early spring, it is desirable that it should be burned over with brush wood. If it can be done without too much labor and expense, the whole plot of ground designed for the cultivation of the tobacco plant, should be burned over in this way; then the refuse pieces of wood that remain after the fire, should be carefully removed; and the next step in the process is to break up the ground by means of a mattock or spade, without inverting the soil.—The next thing to be done is to follow with what are called *killing hoes*. The use of these is to break the surface into small, minute parts, and pulverize it. Then rake the whole ground over, and remove all the little roots that may show themselves.

The ground is now prepared for sowing.—Take a table spoonful of seed to every hundred square yards; sow over the bed one way, and then across the other way. Tread the bed very closely, so as to make it compact and smooth. Now cover over the bed with fine brush, laid on it in rows so as to shade about half of it.—This completes the bed. The plants as they shoot up, are to be transplanted, if they are found to be too thick, and carefully and repeatedly hoed. Repeated hoeing is necessary to the full development of the plant, and securing the greatest amount of tobacco. But plowing should generally precede hoeing. As the plant must be about three feet apart, plowing between the rows, and cross plowing can be done without difficulty. Stirring the soil by the repeated action of the plow is very conducive to the vigorous growth of the plant. It is hardly necessary to say that the weeds must be removed by the plow and hoe, otherwise the plant will be stunted in its growth. How often plowing between the rows must be practised will depend somewhat on the nature of the soil, and its exemption from weeds. The general rule is to plow and cross plow from three to four times, and the hoe to be used as many times.—This ordinarily, will be a sufficient tillage.

I should have remarked before that manuring the land is in almost all cases a pre-requisite to a large yield of tobacco; for unless the ground is thus well prepared, in vain may you expect a bountiful crop.

The next thing to be done is topping. This must be done as soon as the plant puts forth

about 20 leaves. Break off six or eight leaves near the ground, and also the top of the plant. Soon after this pruning the suckers will begin to shoot out. These must be broken off and removed, and as often as they appear they should be taken away. Worms about this time are very liable to infest and injure the plant.—These must also be kept off from it; at least once a week the plants must be divested of these pestiferous insects. In the course of five or six weeks after this the plant will be usually ripe, it is dappled all over with yellow spots, and the leaves are much thicker than when green, and the surface more uneven. As soon as the plant is ripe it should be cut; the best time for cutting is towards *evening*, as the hot sun may wilt and dry it too fast, if it is cut in the heat of the day. In the forenoon of the next day it should be hauled to the barn, or place for drying it. On scaffolds, or poles, at a suitable distance from each other, let the stalks of tobacco be laid six or eight inches apart, according to their size. It is often expedient to kindle a fire under the scaffold that supports the tobacco. The object of kindling a fire is to expedite the drying of the leaves.—Sometimes long continued damp weather requires a fire, that dampness may be removed from the tobacco. The last process is stripping the leaves from the stalks. This may be done in about three weeks after the fires have been discontinued. I generally strip off seven leaves and bind them with the eighth, when I intend to prize it; but I bind a larger number of leaves together when I purpose to deliver it loose at the Stemery. When it will bear the pressure of the hand without breaking stem or leaf, and is tolerably pliant, it is in good packing order, and can be conveniently put in wagons and conveyed to market.

M. W. ADCOCK.

Port Royal, Montgomery Co., Tenn.

THE JUJUBE-TREE.—The seeds of this tree were imported a short time since from the south of Europe for experiment in the south. It grows in the form of a shrub, of middle size, bearing a red oval fruit, about as large as olives inclosing a stone of the same shape. They are sweet, but only eaten among us in the form of a paste. In Algiers the fruit ripens in the month of June, and is much sought after by the inhabitants, who consume large quantities, both fresh and dried, as well as in the form of a delicious paste.

Failures of Guano.

Guano, as a manure has been so generally found beneficial, and also, in most cases, profitable, that success seems to be the general rule, and failures are but exceptions to the rule.—This I readily admit, at least as to immediate or early effects—though remaining more in doubt as to the results of much later times.—Heretofore, in all the numerous publications on guano, we have seen little else of facts stated than cases of successful and profitable applications of this manure. Of such exemplifications of the working of the general rule, so many have been published, and so many have been observed or otherwise known by almost every intelligent farmer, that it would be useless or me to swell these minutes by adding more of such facts of successful use. But though not so published, or generally known, there are also many well authenticated facts of failures—and within the accurate practice and observation of good farmers. It is important that such failures, or the absence of profitable results, or of but partial success, and whether in first applications or, after several repetitions, shall be made as well known. In offering the following minutes of some such cases, it is by no means my object to oppose the judicious and cautious use of guano.

Dr. Wm. F. Gaines, of Hanover, has used guano for five or six years, and in all about 25 or 30 tons on his farm, Powhite, bordering on Chickahominy. The soil light. The average product in corn (without and before guano,) 15 to 25 bushels to the acre, and from 6 to 8 of wheat, after corn. In some cases, good effects were obtained. But in the greater number of cases, so slight have been the benefits derived, that he is sure that, on the whole business, he has not been more than repaid for the outlay. No abiding improvements of the land has been seen, even where the best early effect was noted. The guanoed land has not been thereby made capable of securing better stands of clover.

Mr. Francis K. Nelson, of New Kent, the White House farm, has used guano to the extent of 70 tons, in several different years. He estimated the returns as being about enough fully to reimburse the costs—but yielding no clear profit to encourage the continuation of the

use. He has used this manure on soils of various qualities, including some very poor lands, as well as much of good. In the autumn of 1852, among the last of his trials, he used three tons for wheat on very poor land—some plowed under, some harrowed in with the seed, and some as top dressing. He is confident that the benefits did not more than repay the expense, if so much.

Mr. John Taylor, of Caroline, applied 10 tons of guano to his wheat, on Hazelwood farm, on the Rappahannock, in 1852. Soil, generally sandy, hazel loam, originally fertile, and now in good condition. But there were smaller portions of different kinds of soil included, some very stiff. The guano was applied about 110 lbs. to the acre, with an equal quantity of gypsum previously mixed. A small space had double this quantity for comparison. Some of the dressing was plowed under, and part harrowed in, at the time of seeding wheat. No benefit worth consideration was produced on any part of the field, or by any mode of application.

In 1853, he again sowed, for wheat, 4 tons of guano, with gypsum, and as before, with very little effect, and certainly without anything like an approach to reimbursement of the costs.

He has heard generally, and in many cases particularly, of the applications of guano made last autumn, (1853,) on almost every farm along the southern side of the Rappahannock, for about 40 miles in Caroline and Essex counties; [soil mostly sandy and rich,] and he does not believe that in any one case have the expenses been paid by the increase made in the crop of wheat. He has heard of much better results this year on sundry farms on the northern side of the river, in King George and Westmorland counties.—*Southern Planter*.

Soap, White Lead and Oil.

It is not so generally well known as it should be that a mixture of the above named ingredients makes an excellent coating for gates and fences and outbuildings. The addition of the soap (soft soap only is to be used,) considerably diminishes the expense of the paint, without in any degree lessening its durability, or the facility of laying it on.

I have a house, the north-west side of which was painted with this mixture nineteen years ago, and the paint is now much more brilliant than that put upon the other sides at the same time, though the latter was of the best quality of white lead and oil, and four heavy coats applied, while of the soap paint I applied but two. Fences painted with this mixture, as well as the roofs of buildings, for which purpose any coloring matter or pigment may be substituted for the lead, endure much longer than those painted with pure oil paint. The alkaline qualities of the compound tend to indurate the fibres of the wood, and render them impervious to those atmospheric influences which are the chief cause of decay and rot. The quantity of soap to be used can be best ascertained by experiment; in this point no definite rules can be prescribed.—*N. E. Farmer*.

Rules for Milking.

If you have a gentle cow, be gentle yourself.

If a cow kicks much, place a switch under the left arm, the pan in the left hand, and if, while milking, she kicks, let it be followed invariably by a single blow. Never strike but once at a time, even if she kicks so hard as to break your leg; and never omit it if she hits nothing.

By never striking but once she has no time to "get mad," and it is all the more terrific, for who cares for a blow while stimulated by fury?

A small mess of pleasant food at the time, will serve to do away with any disagreeable impression in connection with milking.

To be a good milker you must pair your nails short, sit on a stool, milk fast, never scold a cow, never get out of patience, tie her tail to her leg in fly-time, never wet the teats with the first stream of milk, and never strike a cow but once for running or kicking.

Milk applied to the teats to soften them, dries and forms a glossy varnish, which tends to cause cracking or chapping of these parts.—Cold water is much better, becoming quite dry by the time the milking is finished, leaving the teats clean and soft.

The greatest hero is not he who subdues nations, but he who conquers himself.

Devonshire Mode of Making Butter.

A lady correspondent of the Boston Cultivator, recommends the method of making butter practiced in Devonshire and some other northern counties of England, with what is called *clotted cream*. She says it is adapted for all seasons of the year, and assures those who will try it, "the butter shall be superior in quality and greater in quantity than obtained by any other process, and what is equal in importance, bring a higher price in the market; of a richer color and finer flavor; not so hard in winter or soft in summer. This butter must not be washed or covered with wet cloths, as that would destroy both the color and the fine *fragrance*, arising from the article when made according to the directions. It needs not be salted more than for fresh summer butter at any season of the year, to cause it to keep any length of time, *it having been cooked*."

We doubt whether this lady has had much experience in this method of making butter, especially "at all seasons," and we do not suppose that all who may try it will fully agree with her in regard to the quality of the article when made, though some persons may fancy it. This method has long been well known in England, and several times published in this country, without finding general favor. The following directions from an English work, says the Ohio Cultivator, are more reliable than those of the Boston paper:

"The milk while warm from the cow is strained into either shallow brass pans, well tinned, or earthen ones, holding from two to five gallons, in which there should be a small quantity of cold water. This is thought to prevent the milk from burning, and to cause the cream to be more completely separated and thrown to the top.

"The morning meal of milk stands till about the middle of the day; the evening meal until the next morning. The pans are now steadily carried to, and placed over a clear, slow fire of charcoal, or over a stove. The heat should be so managed as not to suffer the milk to boil, or, as they provincially term it 'to heave;' as that would injure the cream. The criterion of its being sufficiently scalded is a very nice point; the earthen pan, having its bottom much smaller than top allows this point to be more easily ascertained; because when the

milk is sufficiently scalded, the pan throws up the form of its bottom on the surface of the cream.

"The brass pan, if almost as big at the bottom as at the top, gives no criterion to judge by, but the appearance and texture of the surface of the cream, the wrinkles upon which become smaller and the texture somewhat leathery. In summer, it must be observed, the process of scalding ought to be quicker than in the winter, as in very hot weather, if the milk should be kept over too slow a fire, it would be apt to run or curdle.

"This process being finished, the pans are returned to the dairy; and should it be the summer season, they are placed in the coolest situation; but should it be the winter season, the heat should rather be retained, by putting a slight covering over the pans, as cooling too suddenly causes the cream to be thin, and consequently yield less butter; the mode of making which is this: The cream should, in hot weather, be made into butter the next day; but in winter it is thought better to let the cream remain one day longer on the milk. The cream, being collected from the pans, is put into wooden bowls, which should be first rinsed with scalding, then with cold water. It is now briskly stirred round one way, with a nicely cleaned hand which must also have been washed in hot and then in cold water for these alternate warm and cold ablutions of bowl and hand are not only for the sake of cleanliness, but to prevent the butter from sticking to either.

"The cream being thus agitated, quickly assumes the consistence of butter, the milky part now readily separates, and being poured off, the butter is washed and pressed in several cold waters; a little salt is added to season it; and then it is well beaten on a wooden trencher and until the milky and watery parts are separated, when it is finally formed into prints for the market."

EVERY FAMILY SHOULD HAVE AN AGRICULTURAL PAPER.—It is worth more than it costs simply for educational purposes. Parents have hardly a right to deprive their families of its advantages in these times. Children will learn more, as they go to and from school, or drive the cows to pasture, or pick berries by the way, if their observation is quickened, by what

they hear their parents read or talk over from the agricultural papers; and when they form habits of reading for themselves, such reading is both safe and useful.

Reader, if your neighbor has no agricultural paper, persuade him to take one. Even if he is poor, he can better afford to take one than to do without it; for if he takes one, his children will be likely to be better off—to make a good home for themselves, and it may be for him in old age. Not all will have farms; but all will need to know something of the garden and the orchard at least; and we advise no parent, who feels that he may sometime be dependent upon his children, to bring them up without the means of instruction in rural economy. It should be regarded as essential in the education of any child, male or female.

Haying and Harvesting.

Haying and harvesting are the two grand events in the Summer Campaign of farmers in all grazing and grain growing regions. They are the principal items of labor for the ensuing six weeks or two months, among the great majority of our subscribers, East and West, North and South. In some sections, both these important and laborious operations are at hand—though our readers in New England, New York, the western States, and Canada, have yet time for ample preparation, especially for wheat harvesting. Hence a few remarks on the subject will be seasonable, and perhaps embody suggestions worthy of attention.

It is the first importance to be fully prepared, in season, for both haying and harvesting. Usually the greatest inconvenience experienced by farmers consists in the lack of sufficient and efficient help. An extra number of laborers is necessary, and unless their services are engaged early, loss is often sustained by not securing the grass and grain in proper season. And those who wait until the last moment, are necessarily obliged to accept such laborers as are obtainable, however inexperienced, and not unfrequently pay exorbitant wages. Farmers who require special assistance should see that it is secured without delay, and those who attend to the matter now can engage the most capable hands.

But hundreds if not thousands of our readers cannot accomplish their haying and harvesting

in proper season, without the aid of machinery. Mowing and reaping machines must, to a great extent, take the place—or supply the want of laborers. Those who require the aid of machinery should lose no time, in securing it early, so that there shall be no failure when wanted. There is nothing like being fully “up to time” in beginning to cut grass and grain, and every farmer should make ample and timely preparations to secure his more important and profitable crops at the most favorable period. Those who have the necessary machines and implements, should see that they are in proper order, and those who need new ones should lose no time in securing the best obtainable. We say the best because a poor implement or machine—a one horse affair liable to “fail to connect” when most wanted—is generally a losing investment. Farmers who count their acres of grass and grain by twenties, fifties and hundreds, can not only afford to own and use the most improved labor saving machinery, but will find it nearly indispensable. In many instances, two, three or more farmers can advantageously unite in the purchase and use of mowers, reapers, horse rakes, threshers, &c.

As to the precise time of cutting grass and grain, there are various opinions, though it is now generally conceded that both should be cut before fully ripe. Meadow hay intended for winter feeding should never be allowed to stand until nearly matured. Many of our best farmers cut their grass when in blossom, or soon after that time. By cutting during the period of inflorescence, and curing properly—using from one to two pecks of salt per ton, according to which the hay is to be applied—excellent winter food for stock will be secured.

The advantage of cutting wheat early—from one to two weeks before fully ripe—has been argued and demonstrated, and is now so generally conceded that we need not recapitulate testimony in this connection. The results of carefully conducted experiment, conclusively proving the great advantage of cutting while the berry is soft, have been published and republished throughout the land, and yet hundreds of farmers annually allow their wheat to stand till nearly “dead ripe,” and then raise a tempest because help is so scarce, and their crops about to be half wasted or ruined!—*Rural New Yorker*.

Management of the Pie Plant.

LUTHER TUCKER, Esq.—Having seen many articles upon the culture of Pie Plant, I have been surprised to find nothing said in regard to the number of stems cut or pulled at one time, and the frequency with which it may safely be done, and leave the plant in a healthy state.

Thirty-four years ago I sowed some seeds of the common pie-plant, and when old enough to transplant, selected the finest plants, and set them in a rich mould, one root in a place. After a year or two, selected the best again, and transplanted as before, taking care to give them plenty of room. As near as I can recollect, I took off the flowers as often as they appeared. When the plants became vigorous, I used them as I had occasion, paying no attention to the number of stalks I cut from a single bud, except to take the largest, and those fully grown. Some years they yielded well, then again were feeble. I then adopted the plan of cutting only one stem at a time from a bud, leaving an interval of some days before taking another from the same bud. Following up this plan, I have succeeded in obtaining a very superior article—often two stems, with leaves cut off, will weigh a pound. I think the average is nearly this.

For years no blossoms have appeared upon those which have been in my care, while the same kind of plants set out by myself, but falling into the hands of others, (though in the same soil,) by too close cutting, have in two or three years dwindled down to a very inferior article, and are filled with blossoms instead of leaves. This has transpired in several instances with these plants of my own raising.

I cover my plants with light stable manure in the fall. This is all the care I give them, except to thin them out when they become crowded. I let the plants which are removed stand two years before I cut them, and if not cut, the new plants in that time will be as vigorous as the old.

I might add, that I rarely cut my stems, until the leaves are nearly full size, having found that when fully grown there is no unpleasant taste, as in the younger stems, and they are much more acid and brittle.

My desire to see this valuable plant reared

to perfection, is the only apology for intruding my experience upon your notice.

C. A. E.

—Country Gentleman.

Guano.

It is only fifteen years since guano was first used in Europe, and since 1840, when only a few tons were used by way of experiment, its consumption has increased up to nearly 100,000 tons per annum. In our own country the demands for it were so numerous last year that they could not be supplied. From the great and insatiable demand for this manure it has been subject to the most glaring adulterations by mixing it with loam of the same color as the guano itself. Farmers should therefore purchase it of respectable and well-known dealers. The best quality of this fertilizer is the Peruvian. From the large amount of ammonia and phosphates contained in this kind of guano, together with the almost inexhaustible supply, and the circumstances attending its origin, collection, and importation, the farmer can more implicitly rely upon it for fertilizing his fields than on any other. Being the production of a climate where rain seldom or never falls, its composition becomes less altered, and its character less varied, except in color, than those varieties found farther north or south.

Guano, like farm-yard manure, may be applied with advantage to almost any kind of soil, as well as to most of our cultivated crops, as it contains every element necessary to their growth, independent of the quality of the soil—one great point being attended to—that the land be in good tilth; for otherwise, the tender roots of the vegetables would meet with obstruction, and become crippled in growth.—Poor well tilled soils receive the most advantage from this fertilizer, as they are most generally deficient in some essentials necessary to the growth and perfection of plants, which guano supplies.—*Scientific American*.

OLIVE OIL.—Professor Mapes states that nine-tenths of the oil sold as olive in this country, is manufactured in France from American lard oil, which is purified by sal soda. The oil thus obtained is sweet and pure, excellent for oiling fine machinery, and for making pomade for the hair, and indistinguishable by most persons from olive as a table oil.

From the Northern Farmer.

Cutting Bushes.

MR. MINER:—Having read an article in the February No. of the Farmer, headed, "the Destruction of Bushes," I wish to give you my experience—

I have cut bushes and briars in almost all seasons of the year; but have found no time so effectual for cutting them as from the middle of August to the first September. At this time in the season the sap is all in the body, the year's growth of wood has become hardened, and the sap is about ready to descend to the roots again; and by cutting them off at the roots, it deprives them of their proper nourishment—hence they die immediately. Black alders cut at this season of the year, I will guarantee will never grow again. A neighbor of mine a few years ago had a marshy piece of ground, of about an acre and a half, that was covered with black alders. He cut them the last week in August, piled and burned them as soon as they were dry, and but very few sprouts grew up again; and it is now a fine piece of meadow ground. Let some one try it and give us the result.

P. S. LAKE.

Windham, N. Y., April 5, 1855.

HOW TO DETERMINE THE CAPACITY OF CISTERNS.—A simple rule, by which farmers and others can determine the contents of a cistern, circular in form, and of equal size, at the top and bottom, is this:

Find the depth and diameter, in inches; square the diameter, and multiply the square, by the decimal, .0034, which will find the quantity of gallons, (231 cubic inches being a gallon,) for one inch in depth. Multiply this by the depth, and divide by 31 1-2, and the result will be the number of barrels the cistern will hold. For each foot in depth, the number of barrels, answering to the different diameters are,

For 5 feet diameter,	4.66 barrels.
" 6 do. do.	6.71 do.
" 7 do. do.	9.13 do.
" 8 do. do.	11.93 do.
" 9 do. do.	15.10 do.
" 10 do. do.	18.65 do.

By the above rule, the contents of barn yard cisterns, and manure tanks, may be calculated for any size.

TO CURE GARGET IN COWS.—MR. C. R. Vaughan, of Norridgewock, informs us that he has cured a severe case of garget in one of his cows by the use of sulphur. He gave about three pounds of flour of sulphur to the cow in the course of three days, in bran. It effected a complete cure, and although she was badly affected with this disease previously, she had no signs of it since. He says his stable *didn't smell very well* during its operation, but it soon passed away. This can be tried by any of our farmers who have cows troubled with this disease. It will be seen that Mr. V. did not administer it in homoeopathic doses.—*Me. Far.*

THE ARMY WORM.—The Montgomery Daily Journal, of the 30th ult., speaking of this destructive insect, says—

"We have just heard from Mr. Fay, of Rocky Mount, Antauga County, who arrived in our city on yesterday evening, having left Nashville on Sunday morning last, that the Army worms had made their appearance among the wheat and corn, and were destroying it field by field. This he saw with his own eyes, and learned from various sources that it was a general thing in the surrounding country.

BAD SPECULATION.—At Cazenovia, N. York, several farmers having large lots of hay on hand, had refused \$20 per ton, declining to take less than \$30. Prices have now fallen to \$15 per ton.

MULES.—A French writer says: "The mule is peculiarly adapted to every species of agricultural labor. He lives much longer than the horse, he is much more abstemious, stronger, and capable of supporting the greatest fatigue. His only faults are that he costs more; that his foot is straighter and narrower, and consequently sinks deeper into the plowed land, and that he is apt to become vicious when ill-treated by the persons who have the care of him. Notwithstanding these inconveniences, the mule will always be found exceedingly profitable in agricultural labor.

The best thing to give your enemy is forgiveness; to your opponent, tolerance; to a friend your heart; to your child, a good example; to a father, deference; to your mother, conduct that will make her proud of her son; to yourself, respect, and to all men, charity.

Table of Contents.

Another Time Will do as Well,.....	159
A Hint,.....	156
Baths,.....	157
Bad Speculation,.....	172
Cultivation of Tobacco,.....	166
Culture of Flax,.....	158
Comparative Results,.....	161
Cure for a Cough,.....	165
Cutting Bushes,.....	172
Devonshire mode of Making Butter,.....	169
Every Family should have an Agricultural Paper,.....	169
Essays and Notes on Agriculture,.....	163
Feeding Sheep on Cotton Seed,.....	164
Failures of Guano,.....	167
Guano,.....	171
Haying and Harvesting,.....	170
How to Whiten Linen or Calico,.....	157
How to Destroy Rats,.....	157
How to destroy the capacity of Cisterns,.....	172
Management of the Pie Plant,.....	171
Medical Use of Vegetables,.....	150
Mules,.....	172
Olive Oil,.....	171
Proper Time for Cutting Grass,.....	151
Premiums,.....	158
Preparation for Cleaning Tin Covers,.....	159
Rules for Milking,.....	163
Report of the Sec. of the Mass. Board of Ag.,.....	163
Suggestions about State Fairs,.....	149
Sowing Peas as a Preparation for Wheat,.....	146
Seed Potatoes,.....	158
Solids and Fluids,.....	160
Soap, White Lead and Oil,.....	168
Snuff Rubbing,.....	165
The Joint Worm,.....	147
To Fatten Fowls,.....	157
To Prepare Land for the Osier,.....	159
The Cheapest Food,.....	163
To Cure Garget in Cows,.....	172
The Perfume of Flowers,.....	166
The Jujube Tree,.....	167
The Greatest Hero,.....	168
The Emigrant,.....	163
The Union Agricultural Society,.....	161
The Stable,.....	142
To prevent Metals from Rusting,.....	165
The Army Worm,.....	172
The Willow,.....	162
Washing Windows,.....	157

SUPERIOR STOCK FOR SALE.

THE SUBSCRIBER EXPECTING SOON TO remove from the State, offers for sale a number of Pigs of the SUFFOLK and ESSEX breeds. Also some beautiful half breeds of both stocks.

Also, some fine fowls of the Brama Pootra and Shanghai breeds. The white Shanghais her e regards as far preferable to all other breeds, having tried nearly all. Address,

J. R. GARLICK,
Murfreesboro', N. C.
3t.

May 1855.

GILBERT'S

PATENT IMPROVED WHEAT FANS.

The Subscriber, successor to McElwaine & Burnett, having located permanently at Henderson for the purpose of Manufacturing the above Fans, is now offering at wholesale and retail Fans on such terms as I think will please. I challenge the world to produce

their equal, as many of the best planters having tried them do not hesitate to say that they *can't be beat!*

They will chaff sixty bushels per hour. The very best lumber and materials are used in making these Fans—the irons are all turned and polished smooth, so that they work easier than most Fans—are simple in their construction, but will CLEAN ALL KINDS OF GRAIN!

The Hoppers are large and only require the grain to be thrown into them and they feed themselves.

Don't be deceived by appearances. Some Fans are made at Henderson which resemble them, but unless my name is bronzed on them, they are not mine.

Having located a Branch at Graham, Alamance co., he will furnish to the Planters in that and surrounding counties Fans at the same rate, delivered as heretofore from Henderson.

N. B. Every Fan is warranted perfect. Retail price \$30—a liberal discount made to the trade. I will also furnish to order Wheat Drills, Horse Powers, Threshers, Corn Shellers, Stalk Cutters, Chain Pumps, &c., of northern manufacture on the most liberal terms, all of which samples are kept constantly on hand.

I return my thanks to the citizens of Granville and surrounding counties, for the liberal patronage I have heretofore received, and which I shall endeavor to continue to merit. C. BURNETT.

Henderson, N. C., June 1st, 1855. 4-6t.

TO SOUTHERN AGRICULTURISTS.

An intelligent, steady and practical farmer, who has had 25 years' experience in the most productive wheat and stock regions of Maryland, offers his services as manager on some large estate in the South—he is perfectly familiar with the management of negroes, and can furnish the most ample testimonials of his character from the highest sources in that State; his qualifications as a farmer and stock raiser are such as is rarely to be found any where Address

"AGRICOLA," Washington, D. C.

THE ORANGE IMPROVED STUMP MACHINE.

PATENTED MARCH 6TH, 1855.

FRIENDS OF AGRICULTURAL IMPROVEMENT:—

Having just secured a patent on my IMPROVED STUMP EXTRACTOR, upon the crotch and steel-yard principle, I am free to say that I wish this Machine brought into general use, because I need some compensation for the pains I have taken to bring it to its present state of perfection, and because it is desperately needed—for much beautiful land in many States of the Union, is defaced by odious stumps. This Machine has no rival; its power is very great; its action very rapid, and hence, it may be made to hurl an acre of stumps from their dominion in a very short time.

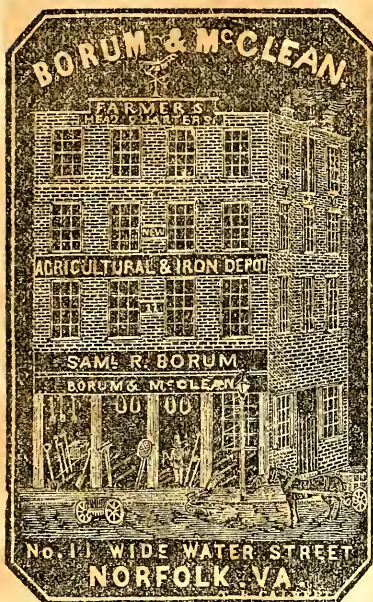
I manufacture these machines at Orange, Mass., where I hold myself ready to furnish them, when ordered from any part of the country. The price will range from \$125 to \$150, according to extent of chain, and weight of iron. I should add, however, that the Machine is simple in structure, and with the Model I furnish, may be manufactured by any good and intelligent blacksmith.

My title to this improved Patent, (good for fourteen years,) covers the nation, and I am ready to sell Rights to towns, counties, and States, at rates altogether reasonable. Please apply at once: my prices shall be low, my terms of payment easy, and if it is wished, I will take real estate or other property in exchange.

Yours very respectfully, W. W. WILLIS.

Orange, April 1, 1855.

A few good AGENTS wanted to Exhibit and sell this Machine in different quarters of the Nation.



BORUM & M'CLEAN,

FARMER'S HEAD QUARTERS,

No. 11, Water-St.,

NORFOLK, VIRGINIA,

ARE NOW PREPARED TO FILL ORDERS FOR HUSSEY'S, Burrall's, or Atkin's Self-raking Reapers, at Factory prices, with or without front wheels, or platform for side delivery. We have issued a Catalogue containing cuts of these three kinds, with description and prices, warrantee, &c. and we shall be pleased to mail a copy to all applicants.

HORSE POWERS. The best kinds in this country, of Lever Machines for two, four or six horses, also

RAILWAY HORSE POWERS, for one and two horses, best make.

THRASHING MACHINES, with wrought iron cylinders, teeth fitting in with screw and tap, at \$45 to \$65 each. Also cast iron Cylinder Thrashers, teeth fit in, in like manner, and either kind warranted to perform well.

MACHINE BELTING from one to eight inches wide, constantly on hand, of best quality, stretched and oak tanned, at manufacturing prices. Wider sizes furnished at short notice.

GRAIN CRADLES, of "Grant's patent," warranted the lightest, strongest and easiest working Cradle in the world, with five and six fingers at \$5 and \$5 25 each, the fingers braced to the sneath with strong wire and by means of thumb screws can be set in a minutes time, and remain perfectly solid and stationary, has no wedge, to fall out and be lost, thereby losing time to make new ones.

GRASS BLADES, and Sneaths of various kinds.

PLOWS.—Three thousand constantly on hand of seventy-five different sizes and patterns to suit all kinds of soil, embracing Sod and Sub-soil, Deep Stubble, two and three furrowed, Gang, Side Hill, Double Mould, Sub-Soil, and Cultivating, Plows of best finish.

CULTIVATORS, with cast, wrought and steel hoes of several varieties, for Corn, Cotton and Tobacco.

HARROW.—Expanding, Hinge, Double Scotch, "Geddes'" Folding, Stationary, Square, &c., made light or heavy, of any dimensions.

STRAW CUTTERS.—Raw Hide, Cylinder Cutters, of five sizes, from \$7 50 to \$20 each. "Smith's Virginia Cutter, \$10 each. "Sinclair's," Screw Propeller, \$28 to \$30 each. "Daniel's" patent Shuc Cutter, \$25 each.

Our Descriptive Catalogues, giving full particulars, with cuts, &c., will be mailed upon application.

MONTGOMERY'S, Bambooroughs, Sinclair's, Clintons, and Grant's Fanning Mills at \$13 to \$35 each.

IRON DEPARTMENT.

- 150 tons English, Swedes and American Iron, all
- 20 tons Hoop and Band Iron, $\frac{5}{8}$ to 4 inches wide.
- 20 tons Oval, half Oval and half round Iron.
- 200 sets Coach and Buggy Axles.
- 300 pair do do Springs.
- 250 kegs Nails, 3 to 40d., cut and wrought.
- 50 dozen Files and Rasps,
- 50 Smith's Bellows, all sizes.
- 1500 pounds Cast-steel Hammers.
- 70 American Star Anvils.
- 50 Vices, for Wood and Iron Work.
- Stocks and Dies, Bench screws, &c., for sale on the best terms.

DEBURG'S Superior Phosphate of Lime, in barrel warranted a pure article at \$48 per ton.

All of the above goods will be sold to responsible Traders and Farmers, on accommodating terms. We are now engaged in manufacturing Farming Implements, and guarantee to furnish a neat, and substantial articles at as low prices as can be bought at in any market. Orders filled promptly.

BORUM & M'CLEAN,
Norfolk, Va.

May 1855.—n3.—13.

LAYING OUT SURFACES.

Lay out an acre in a circle.—First fix a centre, and with a rope as a radius, seven rods, three links and three-eighths long, one end attached to the centre and kept uniformly stretched, the sweep of it at the other end will lay out the acre.

For one-quarter of an acre, a rope *three* and *fourteen* links will be the right length.

For one-eighth of an acre, a rope *two* rods and *thirteen* links will be enough.

Triangles.—If you wish a triangle to contain just an acre, make each side nineteen rods, five and a half links long.

A triangle whose sides are six rods and twenty links long each, will contain one-eighth of an acre.

To lay out an Ellipse or Oval.—Set three stakes in a triangular position. Around these stretch a rope. Take away the stake at the apex of the triangle, which will be where the side of the oval is to come—move the stake along the rope, keeping it tight, and it will trace out the oval.

A square, to contain an acre, or just one hundred and sixty rods, should have each of its sides just twelve rods, ten feet and seven-tenths long.

The Tomato.

This vegetable has now become a universal favorite, and is considered wholesome as well as palatable. It is as easily raised as a hill of potatoes, after the plants are two or three inches high—but the seeds being small, they require a little care to get them well started.—They flourish on any soil where Indian corn will, and require nothing peculiar in the mode of cultivation. Tomatoes may be prepared in the autumn, as they usually are for the table, then bottled, corked and sealed with sealing wax, and kept through the year. It is not absolutely necessary to go to the expense of tin cans.

In speaking of the tomato, the *Working Farmer* says: this plant requires shortening in for early fruiting. Ninety per cent. of the tomatoes grow within 18 inches of the ground, and ninety per cent. of the vine above that point. As soon as the lower tomatoes are the size of a hen's egg, the smaller ones with the

upper part of the plant should be cut off. This will cause the main part of the crop to swell rapidly and produce abundantly, while the portion removed is of no value, as their ripening would have occurred late in the season, and permitted to remain, would have lessened the amount of the main crop.

* * * Early planting is true of most crops. Great mistakes are sometimes made as to depth. There are very few seeds that benefit by deep planting. Many are very scaly and light, and so feeble that they cannot emerge from the ground if placed below the depth of half an inch. This is particularly true of the carrot. Half an inch seems to be the greatest depth at which the carrot can be planted with certain success as to germination. When planted early they are more likely to germinate readily than when sown later, because the seed is so slow in germinating that the sun is likely to bake it, and in many cases the seeds-man is blamed, when, in fact it is the fault of the cultivator. We find, therefore, that carrots have to be planted early, or quite late, to succeed well, and it is preferable, of course, to plant early.

INVINCIBLE HORSE BIT.—Its object is to control runaway horses, and consists in governing a horse by exerting sufficient pressure upon his nostrils, to check respiration and thereby bring him to a stand-still. The pressure is exerted by means of two ornamental padded levers arranged on the sides of the horse's nostrils, and supported by the bit bar, and operated, through the agency of the reins, by the rider or driver. Springs are also provided for throwing the pads off the horse's nostrils when his speed has slackened, these springs also serving to keep the pads out of operation when only the ordinary strain is exerted upon the bit, and thus render the contrivance capable of serving as an ordinary bit when the horse moves gently.—*Scientific American*.

TO MAKE SANDWICHES.—Rub one tablespoonful of mustard flour into half a pound of sweet butter; spread this mixture upon thin slices of bread; from a boiled ham, cut very thin slices, and place a slice of ham between two slices of bread prepared as above; cut the sandwiches in a convenient form and serve. Some chop the trimmings of the boiled ham very fine, and lay them between the slices of prepared bread. This is a good dish for lunch or evening entertainments.



The Carolina Cultivator.

RALEIGH, JUNE, 1855.

TERMS.

1 Copy in advance	\$1 00
6 Copies "	5 00
10 " "	8 00
13 " "	10 00
20 " "	15 00

Subscriptions may begin with any number; but when not otherwise directed, the back numbers of the current volume will be sent.

ADVERTISEMENTS.

A limited number will be inserted at the following rates: For each square of twelve lines, first insertion, ONE DOLLAR; each continuance, SEVENTY-FIVE CENTS.

What is Agricultural Chemistry?

Many excellent farmers are deterred from the study of this branch of science, by the erroneous impression that it is altogether inaccessible to those who have not enjoyed a full college course. This is a great mistake. The essential principles of Agricultural Chemistry may be easily understood, even by uneducated persons, if they will only pay a little ordinary attention to the subject. The larger works generally referred to as authorities, are, it is true, rendered unnecessarily obscure by the use of unintelligible language. There are, however, many elementary agricultural books, prepared in a popular style, and well adapted to popular use. Our present object is to make as clear a statement as we can of the nature and objects of this interesting science, with the view of stimulating our readers to their own improvement.

Agricultural Chemistry, in its more practical bearing, relates chiefly to the *composition* of plants, of the soils in which they grow, and of the various manures employed to increase their productiveness. It is plain enough to common reason, that if plants obtain their chemical elements in a great measure from the soil, each

plant will flourish best in that soil which most abounds in those elements; and it is equally obvious that when the soil has been by any means exhausted of these constituents, those manures are most needed which are calculated to restore them. In these propositions there is nothing incomprehensible or questionable.

Let us see, then, what is the nature of that relation which a plant sustains to the soil. We leave out of view the influence of the sun and the atmosphere upon vegetation, because they are, generally speaking, common to all plants in all situations. More than half of the materials entering into the structure of plants, must be derived from the surrounding air; but as all nature is pervaded by it, and its elements are everywhere present, its influence upon vegetable life may be regarded as constant, and, for the present at least, be thrown out of our calculation. The dependence of plants upon the soil, for the means of nutrition, is an admitted fact. From this source they derive several important constituents which they could not obtain from the air, because it does not hold them. Potash, lime, iron, silica, and the like, which enter into the composition of plants, must be obtained from the soil exclusively. Agricultural Chemistry tells us how much of such elements are necessary to healthy vegetation, and how much more important they may be for one plant than for another. It informs us that wheat contains so much per cent., corn so much, and also of the different proportions in which they exist in potatoes, tobacco, cotton, rice, and sugar. Again, the same science enables us to determine to what extent any particular soil abounds or is deficient in the same elements; and we are thus furnished with such knowledge as we require in adapting the crop to the soil. A soil destitute of lime, cannot, in the nature of the case, furnish lime to a crop which needs it. A superabundance of silica must prove a nuisance to a crop into the structure of which it hardly enters at all.

But the mineral elements constitute a very small part of the essential nutriment of plants. Their influence upon vegetation is chiefly indirect. So far as plants are sustained from the soil, they are indebted to that source, more especially, for other materials which form the great bulk of their substance, viz: for those very elements which they also derive so largely from the air. A plant has two systems of

nutrition, which feed upon the same sources of life. The stem, branches, and leaves, obtain oxygen, hydrogen, carbon, nitrogen, and water from the atmosphere; the roots procure these identical articles from the soil in which they are diffused. Whether they enter in their combined or simple form, makes no difference for our present purpose. It is obvious to the plainest mind that each crop depends for its own relative proportion of these elements upon the relative facility with which they can be procured from the soil. Good wheat, for example, must contain a considerable amount of nitrogen, as an element of gluten, (the most nutritious element of bread,) and wheat, of course, requires a soil in which nitrogen exists in a form which renders it available. Ammonia, or the nitrates, are important constituents of a soil adapted to the growth of wheat, and this lesson we owe to Agricultural Chemistry.

Again, it is the province of this science not only to determine the presence or the deficiency of essential elements in the soil, but to point out the particular manure that may be necessary to improve it. This it can do approximately, but not positively. It is a matter of discretion, and not of mathematics. If a soil is found, on analysis, to contain no lime, we may be sure that plants which require most of that article will not thrive in it, and that the application of lime will be necessary to their proper growth. So it is with soils containing little vegetable mould in a state of decay. Vegetable manure must be supplied, or the crop will be abortive. It is thus that Agricultural Chemistry enters into our counsels, not as an arbitrary dictator, threatening to overthrow or confound the teachings of experience, but as a modest and benevolent guide, ready to add the light of her laborious observation to our own, and proffering to us only those directions for which the farmer has long sought in vain.

We would urge the patient study of this beautiful science upon our country readers, as a highly useful entertainment for their leisure hours. It is by no means necessary to puzzle one's self with ponderous volumes full of learned dulness and inexplicable terms. A few popular, elementary works should first be perused, and the principles of the science mastered, before we think of investigating its details. We propose, in our humble way, to pursue this subject hereafter, in such a manner as to trace

its prominent outlines, and present its attractive features in a favorable light.

Peruvian Guano—New Arrangement.

We are glad to be able to lay before our readers the following gratifying announcement from the Baltimore *Patriot* of May 12th. The high price which guano has reached, and the variable character of the article, have, for some time past, led us to believe that its popularity as a fertilizer was on the decline. Should the system now contemplated prove effective, this valuable manure may, after all, become an object of general demand—

"We are enabled to impart some information upon this subject, which, until now, has been known only to a very few. It is a matter of deep importance to the agricultural interests of our entire country, and of no ordinary moment to many portions of the world.

During the last session of congress, some effort was made to have a bill passed imposing a slight tax on Peruvian guano imported into this country, or to have the price reduced in order that consumers might thereby be benefited.—The matter, however was laid aside, through certain influences. It would now seem from information in our possession, that any further effort of this kind will be rendered unnecessary, as the newly established Peruvian government contemplates making a radical change, not only in its American agency, but in the mode and manner of conducting the whole business, promising more congeniality to the wants, circumstances and wishes of consumers.

We are pleased also to state, upon indisputable authority, that the price of Peruvian guano, under the contemplated new auspices, will ere long, be reduced to forty-five dollars per ton. The Peruvian authorities have discovered serious frauds practised from time to time by speculators in her guano, calculated to bring it into disrepute, as well as to deceive those who purchased and used the article. They ascertained that mixtures or compounds of spurious and damaged guano had been sold repeatedly for the genuine, causing deception and injury to producer, buyer and seller.

For these causes and others, desiring also to deal fairly and acceptably with the American people, and to prevent future similar impositions. Peru has determined to require that all damaged, unmerchantable, or adulterated guano shall be sold at public auction, through her accredited agents, to consumers alone. The contemplated new agency, or *modus operandi*, will consist of a chief agent for the United States, who, we learn, has already been designated, with power to appoint numerous subordinate agents and agencies, at all important points—

these agents to be native American citizens—and by them are the entire details of business to be transacted. Sales in all cases made directly to consumers.

When this system goes into effect, any guano offered or sold as Peruvian by persons not belonging to, or connected with the legitimate agency, will be pronounced spurious and easy of detection. Thus it will be convenient at all times to obtain, with perfect confidence, the approved, genuine article.

We have considered it proper at the present time to acquaint our readers and the public with the facts herein alluded to, as those most interested may eventually, and at no very distant period, become participators in the advantages. It is further understood, that the Peruvian government will employ skilled and competent chemical agriculturists, whose duty it shall be to analyze all guano imported into the various States.

These scientific experiments, with such practical information as may be obtained, are to be published in pamphlet form to the extent of one hundred thousand copies, or more, if necessary, and distributed by the various agencies, gratuitously, amongst farmers, and all others interested in the article. This, we are confident, will be productive of much good, and enable consumers more fully and effectually to appreciate the great fertilizer, adapting it to their lands, &c., to the best advantage.

In view, therefore, of this contemplated new regulation in guano, which, we learn, will probably go into effect before long, it might be well for consumers to give the subject their attention. If a better, cheaper article can be had, and in time to suit all purposes, it becomes an object of economy to wait.

NOTE.—Since the above was put in type, we have seen in the New York *Herald*, a communication from the Peruvian Charge in this country contradicting the *Patriot's* statements. Perhaps the charge referred to has not been definitely adopted, though once in contemplation.

[EDS. CAR. CULTIVATOR.]

The Peruvian Guano Trade.

TO THE EDITOR OF THE NEW YORK HERALD.

New York, May 21, 1855.

Statements relative to a change in the agency and price of Peruvian guano, and purporting to emanate from high authority, having been widely circulated, Messrs. F. Barreda & Bro. would state that all such reports are entirely false and without foundation. That no such changes are meditated by the government will be shown by the accompanying letter from the Minister for Peru:—

TRANSLATION.

NEW YORK, May 15, 1855.

Messrs. F. BARREDA & BRO., Baltimore:—

Gentlemen,—The Baltimore *Patriot* of the 12th inst. brings an article which I have seen copied in several journals of this city, in which it is stated that the Peruvian government intends to change the agency now established for the sale of guano, and to reduce its price to \$45 per ton. You are hereby authorized to state before the public, without any loss of time, that there is not a single word of truth in the views attributed to the Peruvian government in said article on the subject. The importation and sale of Peruvian guano will be effected as heretofore, and under the same arrangements; and if there is to be any alteration it will only be in the advancing of the price up to the figure that may be considered prudent by the government, its owners, whose views are not to extend the consumption here or elsewhere, but to sell it at a price required by the value of its compounds and the good effects it produces on the soil. I repeat again, that it is of the utmost importance to make known the untruthfulness of the statement in the *Patriot*, and that the price of guano will in no event be reduced by the government of Peru. I am, your obedient servant, J. Y. DE OSMA, Charge d'Affairs of Peru.

ANALYSIS OF GRAINS.—A correspondent, requests us to publish an analysis of Indian Corn; we also give that of another of our common grains. According to Prof. Norton, CORN contains in a hundred parts:

Water,	12
Starch,	40
Gum and Sugar	6
Nitrogenous substances,	17
Oil,	9
Woody Fibre,	14
Ash,	2

According to Prof. Johnstone, in a 100 parts, OATS contain of:


Water,	16
Starch,	38
Gum and Sugar,	7
Nitrogenous substances,	16
Oil,	6
Woody Fibre,	15
Ash,	2


Mark the difference now in the analysis of TURNIPS, which contain, of:

Water,	85
Starch, (pectine,)	8
Gum and Sugar,	2
Nitrogenous substances,	1
Oil,	1
Woody Fibre,	2
Ash,	1

WINDOW SASH IMPROVEMENTS.—Windows are among the most troublesome of our ordinary conveniences. The various new-fangled devices for adjusting and fastening them are all unsatisfactory. We are pleased to see that the ingenious continue their efforts to improve upon them. A Mr. C. R. Rode, of New York, has obtained a patent for an arrangement by which windows may be conveniently and securely fastened either up or down. A rod fixed in the lower cross piece, is so placed that, by pushing a thumb piece, it may be moved horizontally and made to catch into racks which are secured in the frame. The idea is a good one. Mr. L. E. Payne, of Miss., has also obtained a patent for a plan by which sashes may be made to fit tight and yet move easily. This is a great desideratum, but we doubt whether it is practicable.

AIR-TIGHT PRESERVING CAN.—MESSRS. Arthur and Burnham of Philadelphia, the first of whom is the patentee, are manufacturing and selling this admirable invention, which we desire to recommend to our readers in time for the coming fruit season. We have every reason to believe that it perfectly fulfils the design for which it is intended—that of preserving fresh vegetables and fruits absolutely unchanged.—It must be delightful to have such things in winter and spring just as they were when first gathered.

 We invite special attention to the advertisement of "Agricola." He is doubtless a first-rate farmer, and his proposition is in the highest degree liberal.

 We receive in exchange that noble Magazine, GRAHAM'S of Philadelphia, and will hereafter acknowledge it regularly. We have only space enough at present to say that for variety of original reading matter, and beauty of embellishment, it has no superior in the United States.

PETERSON'S MAGAZINE is another popular publication with which we have long been acquainted. It is smaller and less pretentious than some others of its class, but as a vehicle of literature and fashion, is worthy of extensive patronage. Our Agricultural exchanges will be attended to next week.

THE CORK TREE.—We learn from the Scientific American, that the Patent Office has distributed the seed of the European Cork Tree throughout a number of the States, for the purpose of testing its adaptation to our climate.—We do not know that any of them have been received here. It is a small evergreen, and cork is the outer bark.

From the Southern Farmer.

Agriculture in North Carolina.

Messrs. Editors:—I have often wished to give you an occasional account of the observations made in my excursions through the country, but I have been as often deterred by the fact that I am so little in the habit of writing for the press that I may not be able to interest your readers, and by the fear that in alluding to the different sections through which I travel, and to the different farms which come under my observation, I might trespass a little on the prejudices of those more immediately interested in the one or the other. I shall, however, comply with your wishes on the subject, in this instance.

Some two weeks ago I attended the court of Halifax, county, N. C., as agent for the Union Agricultural Society. To the Hon. Judge of that circuit I was indebted for an opportunity of advocating the claims of that association to both the court and the people of that section for the courtesy and kindness with which my mission was received, I regret to find that no great degree of enthusiasm prevailed in regard to that most interesting and important matter of agricultural improvement. Like many sections of our own State, the farmers do not seem to appreciate the great advantages of soil and climate which they possess. Agricultural improvement seems here still to be in its infancy. But a population so intelligent cannot long remain insensible to these advantages.—The tide of improvement, now at its flood in some sections, cannot long fail to impart its vivifying influence where so many of the needful elements for improvement exist.

More recently, I visited the county of Northampton, where I was gratified to find a few gentlemen zealously engaged in the improvement of their farms. Here, also, I found a most beautiful country, abounding in fine water, fine soil, fine timber and everything else.

necessary to agricultural improvement. The portion of Northampton through which I passed is not surpassed in agricultural advantages by any section I have ever seen between the Roanoke and James rivers. The country lies well, is based on a good clay, and is not only naturally productive, but capable of as high improvement as any lands that have ever come under my observation. I am indebted to the kindness of H. K. Burgwyn, Esq., for an opportunity of riding over and inspecting the operations of his farm. I felt gratified to find that he was engaged in improving his land, and in a laudable effort to make everything comfortable about him. His teams, stock and everything evinced the diligence of the master's attention. Evidences of improvement were manifest in every part and every department of the farm and of the homestead. His swamps are being rapidly cleared up and drained by under-drains or blind ditches. The groves have been thinned out and put in grass, as well as the beautiful lawn fronting his dwelling; and, notwithstanding the prevalence of an excessive drought, the grass presented a vigorous and healthy growth. You may imagine, Messrs. Editors, the beauty and interest of the whole scene presented by this farm, when I tell you that there were 900 acres in wheat looking luxuriant and healthy; in fact, nearly the whole of it superior to the brag fields of your vicinity. Mr. B. has a bright prospect before him. Although he has been farming but fifteen years, and owing to the loss of his dwelling by fire has had to improve a new place, still the evidences exist all around him that his watchword is "improvement." To the 900 acres of wheat may be added several hundred acres of clover, and proportionable crops of corn, all looking well. In going from Mr. B.'s to Halifax, where I had to take the cars, I passed through the farm of his brother, Mr. T. P. Burgwyn. Here were also evident marks of improvement in the farm, and a due degree of attention to taste and comfort in the general arrangement of the homestead and grounds. What crops I saw on this farm, the wheat crop particularly, were truly fine, but I was informed that a ride along the road did not afford a view of anything like a fair average of the estate. I passed also through the lands of Mr. Lockhart and others. Mr. Lockhart seems to have been chiefly devoted to the culture of corn and cotton, and from

the remains of cotton stalks must have been highly productive. The Messrs. Burgwyn do not cultivate cotton, though their lands, doubtless, are highly favorable to its production.

If the lands which I passed through in Northampton are a fair specimen of the lands of the county, I have no hesitation in pronouncing it as equal to any portion of Virginia, and as holding out inducements to the Virginia emigrant not surpassed, in good soil, good water, good climate and many other good things, by any portion of the mighty west. I must not conclude this article, Messrs. Editors, without tendering my acknowledgments to the honorable Judge Caldwell and the citizens for their politeness in affording me an opportunity of presenting the claims of the Union Society to the consideration of the people of Northampton.

I hope, if this communication reaches the eye of Mr. Burgwyn, he will excuse the liberty I have taken in introducing his name without consulting him.

A. C. M.

Petersburg, May 1, 1855.

American Plate-Glass Manufactory.

At the corner of North Sixth and First-sts., in Williamsburgh, on the 1st of February last, there was a vacant spot of ground. American enterprise has been there, and now there is in operation upon that lot the first American Plate-Glass Manufactory, with furnaces and appurtenances capable of making plates ten feet wide by twenty feet long, and from one-fourth to two and a half inches thick. A plate ten feet square can be made so strong that it will hold a ton weight, and so clear that we could read the fine print of THE TRIBUNE through a piece four inches thick. It is a singular fact that the best English plate-glass is made from American sand. This company have obtained their best sand from Cheshire in Massachusetts. They have also used sand from Delaware and New-Jersey, but are now experimenting with material from a locality nearer home, where it is sufficiently abundant to supply the world, and those interested think they will be able to produce glass so cheap that it will come into general use.

On the afternoon of Thursday last the first great plate ever cast in America was made at

this establishment. To celebrate the event the proprietors invited many gentlemen from this and the adjoining cities to be present. The upper end of the factory was decorated for the occasion with bags, bouquets and emblems.—A table and seats were provided for the guests, at the end of which was a raised platform for the Chairman, surmounted by the national flag, and draped with streamers and green boughs interwoven. Branches of trees and wreaths of artificial flowers were pendant from the roof, and festooned the supporting pillars; and the effect of this ornamentation was heightened by the performances of an excellent band of music, which discoursed sweet sounds during the exercises of the day.

The mechanical resources of this establishment are very extensive. There is one furnace which has 12 pots, holding 600 pounds of metal each. These pots are made of clay imported for the purpose, and made up on the premises. There are 12 ovens 18 feet wide by 40 feet in length, and holding each 12 plates.—When the pot containing the heated metal is taken from the oven it is scraped and cleaned of the scum which has accumulated on the top, and then lifted up by means of a windlass: the metal is then poured out upon an iron table, and pressed into shape by means of a ponderous roller. This table is five feet wide by 14 feet in length. At first the metal is of a white heat, but it changes by rapid transition to a beautiful burnt sienna color, and so remains for some moments. It is then run on a slide into the oven, where it remains in the proportion of two days and a half to the quarter inch in thickness. The operation of casting occupies about one minute to each plate.—*N. Y. Tribune, March 12.*

WHEAT CROP OF SCOTLAND.—It appears from statistical returns just made to Parliament, that the wheat crop the last year in Scotland, in "the best districts," averaged from 28 to 36 bushels per acre, while in the "worst districts," the average was in no case less than 21 1-2 bushels, and from that up to 28. We should like to know how the best wheat districts of this state would compare with the above, and shall be obliged to any of our friends who will furnish an estimate for their vicinities.—*Country Gentleman.*

Spurious Port Wine.

A London paper gives the following account of the manner in which spurious port wine is manufactured:

When port is required to be manufactured, two separate processes are deliberately and systematically gone through; first, the wine itself is made, and then the bottles are prepared into which the liquor is to be transferred. When the mixture itself is deficient in the fragrant peculiarity to the grape, a bouquet is contributed by means of sweet-scented herbs, by orris-root, elder flowers, or laurel water.

A vinous odor is sometimes imparted by small quantities of the liquid known as the "oil of wine." The pleasant juice of the sloe imparts a port-like roughness to the compound, and saw-dust or oak bark effect the same purpose. A fruity taste is given by a tincture of raisins, and the rich ruby color has probably once flowed in the vessels of the sandal-wood tree.

But the bottles have to be crusted. This is done by tincture of catechu and sulphate of lime. The corks are steeped in a decoction of Brazil wood and the very casks are prepared with a layer of cream of tartar, which is formed at the bottom in glittering crystals. Thus a pipe of port which was young in the morning, is made to fall into extreme old age in the course of the afternoon. These are no exaggerations, and the following has been given as the chemical analysis of a bottle of port wine, though for obvious reasons, we suppress quantities:—Spirits of wine, cider, sugar, alum, tartaric acid, and a decoction of logwood. In most instances, when the wine is not manufactured in this country, the consumer is victimized by a three-fold adulteration. The exporter adulterates, the importer adulterates, and finally the retail dealer adulterates.

TWENTY TONS OF HAY PER ACRE.—It was stated by Mr. Cird, at an agricultural dinner given by Mr. Mechi, in England, recently, that twenty tons of hay had been raised off a single acre, in Scotland, the last season. It was Italian rye grass, which grows to a great height in the humid climate of Scotland, and he cut from seven to ten times, from March to December. In the instance named, it was cut ten times after each cutting, an abundant application of liquid manure was made.



Horticultural.

The Strawberry and its Culture.

BY CHARLES A. PEABODY.

That eminent horticulturists are liable to be mistaken in their views of culture, as well as of the origin and history of plants, as any other class of men, we have ample proof in the conflicting opinions of the nature and culture of the strawberry. Downing says: "The strawberry is the most delicious and most wholesome of all berries, and the most universally cultivated in all gardens of a northern climate." Again, he says: "The strawberry properly belongs to cold climates, and though well known, is of comparatively little value in the south of Europe." With this high authority, the horticulturists of the South never dreamed of cultivating to any extent, although the woods and fields were covered with the wild fruit. It was a knowledge of the fact that the wild strawberry grew all around me, that induced me to try strawberry culture at the South. I do not believe there is a plant in nature that so easily adapts itself to soil, situation and climate, as the strawberry. In many of its homes, however, it produces little or no fruit, spreading itself rapidly by its runners.

Now, as there are two ways of propagating the strawberry, one by its seeds and the other by its runners, the question is, which method do we prefer? If we were going to introduce the strawberry-leaf for a tea, for which it makes a good substitute, common sense would dictate to us to cultivate for runners, and stop the fruiting, or perfecting the seed, as the fruit is nothing more than the receptacle for the seed;

and if, on the other hand, we wish seeds or fruit, we must cultivate for that purpose alone, and stop the runners.

Intelligent experimental cultivators have long since discovered that plants have a specific food for their wood, leaves and fruit. Physiologists know full well that it takes different substances to form the bones, flesh and muscles of animals; and profiting by these hints in nature, I would feed for fruit instead of vines. Before planting out the vines, the cultivator should understand the sexual character of the plants, as upon a proper knowledge of this fact will depend his whole success in culture. That plants are staminate and pistillate, or male and female, no intelligent cultivator will presume to deny. But in the strawberry there are three varieties—the perfect male, the perfect female, and the hermaphrodite. The pistillate, or female, is the most productive of the three, when impregnated by one of the other kinds. The perfect staminate, or male, produces no fruit, making a great show of flowers, and sending out innumerable runners, which will soon take possession of the whole bed.—The hermaphrodite produces fruit, but not in so great abundance as the pistillate, and answers the purpose of an impregnator equally as well as the purely staminate.

Before proceeding to the method of culture, I will give my views of the time of impregnation, being fully satisfied that the generally received opinion that the strawberry is impregnated after the petals expand, is entirely erroneous. I have long since observed that the first strawberry blossoms never produce fruit. The staminate varieties, or rather the hermaphrodite, open from two to ten blossoms, which must shed their pollen on the ends of the unopened calyx of the young buds below, or fall on the ends of the unopened pistillate buds, and immediately cause impregnation.

The pollen of flowers is one of the most volatile substances in nature. That of the strawberry, viewed through a microscope, is a hairy substance, which, upon ripening, bursts and floats off on the least breath of air. The point of the unopened calyx, contains a glutinous matter, which catches and holds this hairy pollen, and the work of impregnation is done; and when the calyx opens, and the petals expand, the young strawberry may be seen perfectly formed. From this will be seen the im-

portance of the pistillate and staminate varieties blooming together. I would always prefer the pistillate plant for a large fruit crop; for, if properly impregnated, nearly every bud will be a berry.

Having now explained the sexual character of the plant, and the time of impregnation, I will proceed to the culture. As I have before stated, were I to cultivate for vines alone, I would stimulate the plants by the most active fertilizers; but if fruit be the object, the luxuriance of the vine must be curtailed; and that food only, known as the special food of the fruit, given. Now, as to soils. There are as many opinions as cultivators, from the fact that the strawberry adapts itself to almost any kind of soil. But the soil which I have found to suit them best, is a sandy loam. I would prefer new land for the beds, with a stream of water running through them, as water, being an indispensable requisite, should be in the vicinity.

It is now well known throughout the Southern States, that for many years I have cultivated the strawberry extensively, and have had from my beds a constant succession of fruit six months in the year, and frequently have it ten. While I am now writing, (December 24,) one of my beds of an acre, is loaded with ripe fruit, specimens of which I have sent to New Orleans, Montgomery, Savannah, Charleston, Mobile and New York. This bed has scarcely produced a runner the past season. The causes of this will be found in my method of culture. I have said that I prefer a sandy soil and new land. My grounds are on what is called "piney wood lands," hill and valley, with never-failing streams meandering through them. I have taken the grounds bordering on the streams, ploughed them deep, and laid them off in rows, two feet apart, and planted as in the annexed diagram—

* * * * *	* * * * *	Early 'Scarlet.
† † † † †	† † † † †	Hovey's.
† † † † †	† † † † †	"
† † † † †	† † † † †	"
† † † † †	† † † † †	"
† † † † †	† † † † †	"
† † † † †	† † † † †	"
* * * * *	* * * * *	Early Scarlet.
† † † † †	† † † † †	Hovey's.
† † † † †	† † † † †	"
† † † † †	† † † † †	"
† † † † †	† † † † †	"
† † † † †	† † † † †	"
† † † † †	† † † † †	"
* * * * *	* * * * *	Early Scarlet.

I plant the pistillate for fruit, and the hermaphrodite for impregnators; and the only two which I have found to bloom and fruit together the whole season, are the Hovey Seedling and large Early Scarlet. Ross Phenix, Burr's New Pine, and a seedling of my own, not yet fully tested, I have also caused to bear continuously. I plant seven rows of the pistillate, and one row of the hermaphrodite, two feet apart each way. The first season I let the runners fill the ground; in the fall, go through the grounds with hoes, thinning out to eight or nine inches, leaving the vines to decay just where they are cut up. I then cover the whole bed with partially decomposed leaves from the woods or swamps. The winter-rains beat down the leaves, the fruit-germ finds its way through them, and the first mild weather of spring the blossoms appear.

I have before spoken of the volatile nature of the pollen. In very dry weather the particles float off on the winds, and much is lost to the buds below; hence the importance of watering freely when in bloom. Free applications of water will set the whole bed with fruit, which will require continuous watering to swell and ripen it. A strawberry bed may be moist, the plants in fine condition, and yet one good shower will make a difference of one-third in the quantity of fruit picked the day after. Consequently, in dry seasons, artificial watering must be resorted to, and no labor will pay better.

I never use animal manure of any kind—nothing but the leaf-mould, and an occasional sprinkling of wood-ashes. The leaf-mould keeps the ground cool and moist, as well as the fruit clear, and does not stimulate the vines to runners. The potash and acids contained in it is just what the fruit wants. Should the vines be disposed to spread, keep the runners down by constant pinching off, and clear out the grass and weeds with the hoe. A few years of this culture will check their disposition to run, and encourage them to fruit. The bed thus once formed and cultivated, will, to my certain knowledge, continue productive twelve years, and, I have reason to believe, as much longer as the culture is continued. Should the vines have taken possession of the ground, in spite of the efforts to keep the runners down, we go through in the fall with the hoe, thinning out the plants to ten or twelve inches, leaving

every cut up vine to decay on the ground where it grew; we then cover with the decaying leaves. When the plants begin to bloom in the spring, a top dressing of wood ashes will be found beneficial. I have tried strawberry culture with the plough, which will make a greater quantity of vines, but will give only one crop of fruit. It is generally remarked that the wild strawberry is finer flavored than the cultivated; but with this treatment the latter retains all the original flavor.

It has been recommended by some cultivators to irrigate the strawberry grounds by letting water on the vines; but the strawberry cultivated after the manner described, can bear as great a drought as any other plant. It is not the vines and leaves than want the water, but the flowers and fruit; and the water must come in the form of rain, through the clouds, from an engine; or a common watering-pot.

I have noticed quite a contest going on among horticulturists as to the possibility of strawberries changing their sexual character by cultivation. Without taking part in the controversy, I must state that I would as soon think of high feed turning a cow to a bull, as to change the pistillate character of Hovey's Seedling by any method of cultivation. I have cultivated the strawberry under every aspect; with high manuring, and without manure; in new lands; have had the vines stand from 12 to 18 inches high, and in meek submission to hug the ground; yet I have never found the least change in the blossom. A perfect pistillate or staminate flower, first blooming so from seed, will never bloom any other way. Cultivators are often deceived about their plants, from the fact that they frequently find varieties in the beds which they did not plant; but these spring from seed. The strawberry springs from seed with astonishing rapidity. Since my beds were started, the whole country around me is covered with strawberry-plants from the seed dropped by birds. These I find running into all varieties—pistillate, staminate, and hermaphrodite—most of them worthless, but some with good fruit.

The proper time for transplanting the strawberry at the South, is as soon in the fall as the weather is cool and moist enough. Here, this may be continued until spring. Plants are easily transported great distances in the winter. I have sent them 2,000 miles with safety. It

will be observed by the diagram, that I plant the staminate every eighth row. Some cultivators mix in the rows; but I prefer to keep them separate and distinct, as they are more easily distinguished, and kept better in their places.

Now, if the cultivator would know the secret of my having strawberries six, eight, and even ten months in the year, in the hot climate of Georgia and Alabama, it is this; proper location, vegetables manures, shade to the ground without exhaustion, and water to the bloom and fruit.

One reason why so many fail in garden culture with the strawberry is, that the beds are surrounded by trees and shrubbery, which produce one crop of fruit in the spring, but rarely more than that, unless it should prove a very wet season. The strawberry-bed, whether in the garden or the field, should have no tree, plant, or shrub near enough to it to take the moisture from the earth. The plants require all the moisture from the atmosphere and the earth around them. Whether the strawberry was originally found in cold climates, or not, I find they readily adapt themselves to any climate, and very soon become indigenous. I doubt whether there is a State in this Union that cannot produce the strawberry months, instead of weeks in the year, with proper culture. And when we take into consideration the ease and simplicity of its culture, its delicious flavor and healthy influence upon the system, it ranks first in importance among the fruits of the earth.—*Patent Office Reports.*

Culture of Asparagus.

Asparagus has long had a place in the vegetable garden, still its excellences have not arrived at a full or general appreciation, even by those who have every facility for growing it in perfection. It is either supposed to be a rarity and of difficult growth—and hence beyond their reach—by those who know little of its habits and culture, or it is looked upon as of little value by those who “have no time to waste in gardening.” But it is neither difficult to raise or unworthy of pains-taking. “An humble sea-shore plant, braving the salt waves the winter's cold and summer's heat, it has been brought into the garden, acclimated and tended, until it holds the first rank among the vegetable luxuries of the table.” It is true

that it requires both time and care to get a bed into full operation, but once properly prepared, it endures for years and amply rewards all trouble and expense incurred in its establishment.

To grow asparagus from the seed it may be sown either in autumn or early in spring, in a good loamy soil. The seeds should be from select seed, and allowed to get dead ripe before the stalks are cut. After gathering, the berries may be put in water, and when slightly fermented they can be easily washed from the pulp and dried. One ounce will grow a thousand plants. Sow in drills an inch deep, about one foot apart, and cover with fine soil, pressed down lightly. Keep the weeds out, stir the soil often, and thin the plants to six inches apart, giving them every encouragement to grow—and, if properly tended, most of them will be fit to transplant at one year old. The weaker seedlings may stand another year, or until autumn, and then be removed.

The bed intended for growing asparagus should be open to the morning sun, but protected from the north and west, and away from the shade or drip of trees or buildings. It should be very rich, and on this, more than anything else, depends the value of the product. Dig up a loamy, porous soil the depth of two feet, intermixing thoroughly and largely with manure, except the upper portions which should be of rich loam. The young plants may then be removed from the seed bed—disturbing the roots as little as possible—and carefully set out in rows two feet apart, one foot apart in the row. Then with dark colored soil, made so by mixing charcoal dust or well decomposed vegetable matter, cover the whole bed two inches deep, and sprinkle on salt until the surface is white again. This will keep down the weeds and promote the growth of the asparagus.

In autumn remove the dead stalks, and cover the bed three inches deep with stable manure to be forked in, in the spring, with another dressing of salt. For two years let the stalks grow to strengthen the roots, which in that time, will generally be pretty well established. The third year the asparagus will—with the treatment above described, and perhaps, a slight addition of earth to prevent the roots coming too near the surface—continue to yield well for many years. It should be remembered that

room, a rich, warm soil, moist but well drained, and salt enough to prevent the growth of weeds, are particularly beneficial to the asparagus plant.

Some writers recommend earthing up so as to blanch the stalks, and give directions for cutting as soon as the plants appear, several inches below the surface. For our eating, we much prefer the succulent and juicy *green* stalks, three or four inches high, to the tough, insipid white part, which has been cut beneath the surface.—*Rural New Yorker*.

How a Thriftless Farmer was Reformed.

[We copy the following story from one of Dr. Glen C. Haven's Letters to his Son, published in *Life Illustrated*.]

If you have a place for everything, and keep it in its place, if you have a *time* to do business, and do it in its time, you will find that you will "*drive* business" instead of business driving you, and so will have leisure instead of constant worry. It pains me to see some men undertake any business of moment. They are as sure to become entangled, and thrown on their backs, their business a-top of them, as they are to undertake it. Take farming for instance. Now I venture the assertion that two-thirds of all the farmers in *this* State are burning *green* wood this terrible cold weather. Go into their houses, and you hear the sissing of the beech, or maple, or elm, as like to the death dirge of a cockroach as can be. Out of the chimney tops comes forth smoke dark as Tartarus, and there wives and hired girls are cross as bedlam. These men could not find time to cut their wood and have it seasoned. Now I charge it on you, that you fail not to *have time to do* all that you undertake—in order. Every day accidents, casualties, catastrophes, providences are taking place, because men, women and children have not time to do things as they *ought to be done*. I must tell you a story—which is a *fact*. When I was a boy, there lived in my native village a family by the name of Wilson. There were four boys and four girls, and they were exceedingly gifted. Not one of them was there who did not rank in beauty, intellect and personal physical power a good way above mediocrity. They all had more than common educational requirements, for they

learned easily. The girls all married early, and to young men of high promise. The men all married—and to respectable women. Yet all remained poor. Their failure was directly attributable to a *want of order*. Not one of them was ever known to do a thing in its *time*, nor have any thing in its *place*—with one exception, and he is the hero of my story. Of one of the girls I may say truthfully that for over thirty-five years she has *never seen the sun rise*, always going to bed past midnight and rising past midday. But to my story. Erastus Wilson was a farmer—a shiftless, slovenly, disorderly, slipshod farmer. The winds and the waters, the sun and rain, darkness and broad day, all conspired to do him harm. His gates were unhung, his hogs' noses were unwrung, his sheep could leap his fences like wild deer, his cattle were seen with boards over their eyes, great spiked chains on their necks, yokes on, and "tied head and foot." His horses were as thin as a Rhode Island spare rib—you could see sunrise through them. His windows had old hats, old coats, old newspapers, and shingles, instead of glass. His corn was stunted, his meadows half covered with grass, and around and about him the spirit of *decay* seemed to brood. Yet he worked hard, did not drink, nor gamble, nor quarrel. In fact, he was a *pious* man, but he did everything at the wrong time and in the wrong way.

Thus he lived until his hair turned *gray*, and poverty sat at his table an acknowledged member of his family. One cold December day he was going to his barn, and it happened that he lifted up his eyes, and afar off in one of his lots he saw something to him like deer-horns sticking through the top of a snow-drift. He was all alive. He would make a conquest—so over the fence he leaped and made for the *deer*. He waded the drifted and the undrifted snow till he reached the spot, when, behold! instead of the horns of a buck, there stuck up the *two handles of his plow*! He was very angry, and started to go back, when he said he heard a voice as audibly as ever a voice spake, say, "Erastus Wilson, you deserve a good flogging for leaving your plow out in the snow. It is by such heedlessness you have come to poverty. Pick up your plow and take it to the barn."

He immediately set about it, and by what means he did it he never could tell. But thro' that deep snow and over the drifts he dragged

the implement to the barn. Once there he took a raw hide, stripped himself naked, and addressed himself.

"Erastus Wilson, you are a mean, dirty, poverty-stricken-man. All your long life you have been too lazy to save what you have earned, or too careless to do it. You deserve a flogging. Here is your plow whose handles you could never see, till you thought them the horns of a deer, then you could wade drifts waist deep to get them. You deserve a good flogging, you careless blockhead, and you shall have it," and he laid the raw hide on to his body, legs and feet, till he raised great wales, he skipping around the floor naked and screaming, while he would say, "Leave your plow out! will you?—Pretty farmer you are, aint you? I'll see if I can't teach you better." Thus he flogged himself most soundly, dressed himself, and went in. From that flogging he came forth a changed man. He was prompt, orderly, saving, and up with the times. His neighbors were surprised. His family were wonder-struck. He began to thrive, and in less than three years his farm, his flocks and herds all bore the evidence of being under the guidance of a spirit whose energies were of the amplest order. About this time he sickened and died.

Founder in Horses.

MR. TUCKER—I send you a recipe for founder in horses, which I have never seen in print. I have used and recommended it for fifteen years, and so far as my experience goes, it is a *sure and speedy remedy*:—Take a table-spoonful of pulverized alum, pull the horse's tongue out of his mouth as far as possible, and throw the alum down his throat; let go of his tongue, and hold up his head until he swallow. In six hours time, (no matter how bad the founder,) he will be fit for moderate service. I have seen this remedy tested so often with perfect success, that I would not make five dollars difference in a horse foundered (if done recently) and one that was not.

E. L. PERHAM.

[Oregon Tel.]

Albany.

TO RESTORE COLOR IN PRINTS.—A little alum dissolved in the rinse water will restore green or black. A little vinegar added to the rinse water will restore red.

Ladies' Department.

RECIPE FOR HARD SOAP.—Put it into a keg or other small vessel, two thirds of a peck of caustic or stone lime, which must be slaked for the purpose. Then stir into it five pounds sal-soda, (the lump soda, and not the flour.) Set up a leach of one barrel of good ashes, and have the ley running at the time the lime and soda are prepared. As fast as the ley is procured, put it into the keg of lime and soda, stirring it thoroughly at the same time. Let it settle from time to time and dip off the clear part carefully into a kettle containing fifteen pounds of grease, and keep it boiling with a gentle heat. Continue to dip the running ley first into the lime, and after it has there settled out into the grease kettle until the ashes have become spent and the ley is too weak to be of farther value. The soap will by this time undoubtedly be done; but if it should fail from any cause, a little more strong lye passed through the lime, or a little more boiling will perfect the process. The soap can then be poured off into a tub to cool, and afterwards cut up into bars or cakes and dried.

This soap is cheap, and with a little age, admirable for all family purposes. Soda can be procured for five cents a pound, and if it is desirable to make the soap harder, more of the soda and less of the lye is to be used, and *vice versa*.

INCOMBUSTIBLE WASH FOR THE ROOFS AND WALLS OF BUILDINGS.—Take of common water a quantity proportionate to the surface to be protected, and stir in potash as long as it will dissolve. When the water is perfectly saturated, stir in first, a quantity of pure clay to render the mass as thick as cream. When the ingredients are well mixed, the preparation is to be applied to the wood, and will be found efficient in protecting it from the action of both fire and rain. It is asserted by those who have tested its value, that wood work exposed to intense heat, if coated with this cement, may be charred or carbonated, but cannot be made to burn.

When desirable, a very agreeable color may be imparted to the wash by adding a small quantity of red or yellow ochre.

HOW TO PREPARE TOMATO SAUCE.—*Mr. Editor*—Thinking that the following directions may be serviceable to some of your readers, I offer them for publication in your columns.

Gather your tomatoes when fully ripe, and after washing, mash them in some suitable vessel. Then place them in a kettle, over a moderate fire, and when just warmed through, press a cullender down upon them—then dipping from the cullender all the watery juice possible.—After boiling a short time, strain the mass through a wire sieve just fine enough to retain the rind of the fruit—then return it to the kettle and boil it down to the desired consistency, (some prefer it thin, as it retains more of the flavor,) taking all care that it does not become scorched in the process. Heat the bottles you intend to use, in a steamer, to boiling heat, and while they retain this heat fill them with the sauce in a boiling state. Then cork immediately with good corks, and place them where they can cool slowly. Tomatoes thus prepared will keep good and retain all their original freshness and flavor until their season comes round again.

NATHAN WINSLOW.

P. S. A woolen mitten is necessary to handle the bottles, and if large quantities are to be put up a machine is desirable.

How to Enrich a Garden.

MESSRS. EDITORS:—A few years ago I had occasion to occupy a new garden. It had been worn by continual cropping without manuring, till it would not produce half a crop of any thing. I had no manure to put upon it. I could have bought open barn-yard manures, that had been washed and bleached through the year till most of the salts and all the *urine* was gone, but I thought it would not pay well. Nor could I any better afford to cultivate a garden to the halves. There was a half acre in the garden. I planted about one-third of it to white sugar beet. The remainder to corn, potatoes, peas, beans, squashes, melons, cabbages, tomatoes, onions, &c., &c. There was one thing that I could do. I had a family of five, three adults and two children, one an infant. I placed a half hogshead, convenient for receiving the dirty slops of the family, including the urine of the chambers. This was filled about once a day through the week and two or three times on Mondays. My method of ap-

plying it was this: at evening I began at one end of the garden, and with a pail and dipper, I threw it upon the hills and beds of everything I planted, till the tub was emptied.—The second evening, I began where I left off the first, and continued on till the tub was again empty. So I continued till I had gone over the whole garden. I continued to repeat the same process through the entire season, or until the garden had become so matured as to need no more food. The first time going through the garden, as the seeds were not up, I used a large watering-pot, with a coarse nose. The second time through, I used the pail and dipper, and applied the liquid around the young plant. As the plants became large and nearly covered the ground, I applied the liquid to the ground wherever it was naked.

And now for the result. I had a neighbor, Dr. C., a competitor in the gardening line, that summer. His garden joined mine, the same size and the same quality of soil. He had plenty of open barn-yard manure and plenty of time to work his garden. He often boasted of having had the best garden in town, and thought he should have the best, notwithstanding mine. But no sooner were the gardens well up, than the Dr. began to show signs of suspicions that he should be beat. About the first of July he came into my garden and said, "I have come to inquire into the secret of your power you have over the vegetable kingdom. The rapid growth of your garden is a great mystery to me. Your garden was plowed once, mine twice, and dragged well. Yours was run down and had no manure, mine was in better order, and besides, had plenty of manure. Mine also has had a little better attention than yours, and now the first of July, yours is certainly thirty if not fifty per cent, ahead of mine. Tell me what you have done to it." "Well, Doctor, come with me into my wood-house," said I. "There, that tub, with the help of my good wife, contains all the secret there is about it. I have been feeding my garden just as you do your pigs." "Well, now I see what you have been doing all summer. I supposed you were watering your garden all summer, and I wondered why you should be doing that when there has been plenty of rain. Now I see the mystery."

That garden, Messrs. Editors, had the repu-

tation of being the most productive of any garden in the county. That was my first experiment with the waste water of the family. And as that was applied to a half acre of worn-out land for only a part of four months in the year, I came to the conclusion that had the whole been judiciously applied one entire year, it would have been amply sufficient to keep, in a high productive order, two acres. But in this estimate, I have not included the excrement from the privy. My opinion was then formed, and has been confirmed by later experiments, that the manure from the family would be amply sufficient to enrich as many acres for all the purposes of agriculture, as there are members in the family, and this, too, exclusive of absorbents to be used. But, by the judicious use of absorbents, the amount could be easily doubled or quadrupled even. And this would be the true way of saving and using the liquid. With the expense of one-half ton of guano, in *permanent fixings*, any farmer could make from his house one ton a year through several generations. It will *certainly* pay.

J. L. EDGERTON,
Georgia, Vermont.

Country Gentleman.

—♦♦♦—
BREEDING FISH.—The Natural Historic Society of New Jersey has appointed a committee to consider the feasibility of stocking the rivers with salmon. There seems to be no doubt that it can be done. The only question is if it can be made profitable.

In this mammon-worshipping Age, it is rare to find a man place his usefulness to the public, before his interest. During a late visit to the "City of spindles," we were presented by a professional friend, to the celebrated Chemist, Dr. J. C. AYER, whose name is now perhaps, more familiar than any other, at the bedside of sickness, in this country. Knowing the unprecedented popularity of his medicines, and the immense sale of them, we had expected to find him a millionaire, and rolling in wealth. But no, we found him in his laboratory, busy with his laborers, among his crucibles, alembics, and retorts—giving his best personal care to the compounds, on the virtues of which, thousands hang for health. We learned, that notwithstanding his vast business, and its prompt returns in cash, the Doctor is not rich. The reason assigned is, that the material is costly, and he persists in making his preparations so expensively, that the nett profit is small.—*American Farmer, Philadelphia.*

TABLE OF CONTENTS.

	Page.
American Plate-Glass Manufactory, - - -	132
Agriculture in Nova Scotia, - - -	125
Agriculture in North Carolina, - - -	131
Air-tight Preserving Can - - -	131
Analysis of Grains, - - -	130
Black Warts—Whitewash - - -	126
Culture of Asparagus, - - -	136
Cultivation of the Pear Tree, - - -	118
Diseases of the Udder and Teats of Cows, - - -	117
Do Soils Lose their Manures by Leaching, - - -	126
Economy in Farm Implements, - - -	114
Fattening Animals, - - -	114
Farmers, - - -	125
Founder in Horses, - - -	138
Green for Cows, - - -	124
Guano, - - -	133
Heading Cabbages, - - -	116
Hybridizing, - - -	122
How a Thriftless Farmer was Reformed, - - -	137
How to enrich a Garden, - - -	139
How to prepare Tomato Sauce, - - -	139
Improved Short Horn Bull, (Illustration,) - - -	123
Important Questions Answered, - - -	121
Invincible Horse Bit, - - -	127
Incombustible Wash for Walls and Roofs, - - -	139
Laying out Surfaces, - - -	127
Origin of Various Plants, - - -	116
Planting Small Potatoes, - - -	125
Peruvian Guano—New Arrangement, - - -	129
Recipe for Hard Soap, - - -	139
Setting out Cabbage and other Plants, - - -	123
Spurious Port Wine, - - -	133
Treatment of the Legs and Feet of Colts, - - -	120
The Tomato, - - -	127
To make Sandwiches, - - -	127
The Cork Tree, - - -	131
The Cheapest Food, - - -	131
The Strawberry and its Culture, - - -	134
To Preserve smoked Meat, - - -	140
To Restore Color in Prints, - - -	14
What is Agricultural Chemistry? - - -	123
Window Sash Improvements, - - -	131
Wheat crop of Scotland, - - -	135

SUPERIOR STOCK FOR SALE.

THE SUBSCRIBER EXPECTING SOON TO remove from the State, offers for sale a number of Pigs of the SUFFOLK and ESSEX breeds. Also, some beautiful half breeds of both stocks.

Also, some fine fowls of the Brama Pootra and Shanghai breeds. The white Shanghaies he regards as far preferable to all other breeds, having tried nearly all. Add resd,

J. R. GARLICK.
Murfresboro', N. C.

May 1855.

3t.-

GILBERT'S

PATENT IMPROVED WHEAT FANS.

The Subscriber, successor to McElwaine & Burnett, having located permanently at Henderson for the purpose of Manufacturing the above Fans, is now offering at wholesale and retail Fans on such terms as I think will please. I challenge the world to produce

their equal, as many of the best planters having tried them do not hesitate to say that they *can't be beat!*

They will chaff sixty bushels per hour. The very best lumber and materials are used in making these Fans—the irons are all turned and polished smooth, so that they work easier than most Fans—are simple in their construction, but will CLEAN ALL KINDS OF GRAIN!

The Hoppers are large and only require the grain to be thrown into them and they feed themselves.

Don't be deceived by appearances. Some Fans are made at Henderson which resemble them, but unless my name is bronzed on them, they are not mine.

Having located a Branch at Graham, Alamance co., he will furnish to the Planters in that and surrounding counties Fans at the same rate, delivered as heretofore from Henderson.

N. B. Every Fan is warranted perfect. Retail price \$30—a liberal discount made to the trade. I will also furnish to order Wheat Drills, Horse Powers, Threshers, Corn Shellers, Stalk Cutters, Chain Pumps, &c., of northern manufacture on the most liberal terms, all of which samples are kept constantly on hand.

I return my thanks to the citizens of Granville and surrounding counties, for the liberal patronage I have heretofore received, and which I shall endeavor to continue to merit.

C. BURNETT.

Henderson, N. C., June 1st, 1855.

4-6t.

TO SOUTHERN AGRICULTURISTS.

An intelligent, steady and practical farmer, who has had 25 years' experience in the most productive wheat and stock regions of Maryland, offers his services as manager on some large estate in the South—he is perfectly familiar with the management of negroes, and can furnish the most ample testimonials of his character from the highest sources in that State; his qualifications as a farmer and stock raiser are such as is rarely to be found any where Address

"AGRICOLA," Washington, D. C.

THE ORANGE IMPROVED STUMP MACHINE.

PATENTED MARCH 6TH, 1855.

FRIENDS OF AGRICULTURAL IMPROVEMENT:—

Having just secured a patent on my IMPROVED STUMP EXTRACTOR, upon the crotch and steel-yard principle, I am free to say that I wish this Machine brought into general use, because I need some compensation for the pains I have taken to bring it to its present state of perfection, and because it is desperately needed—for much beautiful land in many States of the Union, is defaced by odious stumps. This Machine has no rival; its power is very great; its action very rapid, and hence, it may be made to hurl an acre of stumps from their dominion in a very short time.

I manufacture these machines at Orange, Mass., where I hold myself ready to furnish them, when ordered from any part of the country. The price will range from \$125 to \$150, according to extent of chain, and weight of iron. I should add, however, that the Machine is simple in structure, and with the Model I furnish, may be manufactured by any good and intelligent blacksmith.

My title to this improved Patent, (good for fourteen years,) covers the nation, and I am ready to sell Rights to towns, counties, and States, at rates altogether reasonable. Please apply at once: my prices shall be low, my terms of payment easy, and if it is wished, I will take real estate or other property in exchange.

Yours very respectfully, W. W. WILLIS.

Orange, April 1, 1855.

A few good AGENTS wanted to Exhibit and sell this Machine in different quarters of the Nation.

DR. STRONG'S COMPOUND SANATIVE PILLS

These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Scrofula, Salt Rheum, Fevers of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of Piles, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also

DR. STRONG'S PECTORAL STOMACH PILLS

A remedy for Coughs, Colds, Catarrh, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a deranged state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, in weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expectorant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Syrups, Balsams, or Sarsaparillas, that were ever made; and a simple trial of only one box will prove this important truth.

They promote Expectoration, Loosen the Phlegm, and Clear the Lungs and other Secretory Organs, of all morbid matter, and there is not another remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. They Cure Costiveness, produce a good, regular Appetite, and Strengthen the System.

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the *Planter's Almanac GRATIS*, giving full particulars and certificates of cures.

Both kinds of the above-named Pills are for sale in **Every Town and Village in North and South Carolina.**

And at Williams & Haywood, Raleigh, N. C.
May 1855. 3—

TO PLANTERS.

THE UNDERSIGNED HAS BEEN appointed Agent for the sale of "KETTLEWELLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of COTTON and CORN, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to its yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by HENRY NUTT, Agent for the State of North Carolina, at Wilmington. 3—

PURE MERINO SHEEP FOR SALE.

I HAVE A FEW YEARLING RAMS, AND Ewes, from one to three years old, which I will sell. Also three Rams older, and very choice. They can be sent to any part of the country with safety.—For prices, &c., apply to **C. PETERS,**

Darien, Genesee Co., N. Y.
May 1855. tf.—

NORTH CAROLINA MUTUAL LIFE INSURANCE Company, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the **MUTUAL PRINCIPLE**, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$30, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 90 days after satisfactory proof is presented.

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Communications should be addressed, (post paid) to
JAMES F. JORDAN, Secretary.

NORTH CAROLINA MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

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J. B. G. Roulhac, Raleigh.
Henry D. Turner, do.
J. R. Williams, do.
T. H. Selby, do.
C. W. D. Hutchings, do.
James F. Jordan, do.
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John M. Jones, Edenton.
W. W. Griffin, Elizabeth City.
F. F. Fagan, Plymouth.
W. N. H. Smith, Murfreesboro'.
H. B. Williams, Charlotte.
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O. F. Long, Hillsboro'.
Joseph White, Anson County.
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H. D. Turner, Vice President.
John C. Partridge, Secretary.
John H. Bryan, Attorney.
J. Hersman, General Agent.

John R. Williams, } Executive Committee.
T. H. Selby, }
C. W. D. Hutchings, }

This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam

Mills and Turpentine Distilleries,) upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in hands properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid,
J. C. PARTRIDGE, Sec'y.

Raleigh, Jan. 9th, 1855.

ENGLISH CATTLE, SHEEP AND SWINE.

ALSO Mules and Merino Sheep from Spain. Selected and imported on commission to any Atlantic sea port in America, by Thos. Betts & Co., at Liverpool and Herts, England.

Circulars containing the prices of all kinds of English Stock, and the expenses from England to America, including insurance can be received by applying personally or by post to G. M. Miller 81 Maiden Lane, New York City. Agent for

THOS. BETTS & CO.

FARMER'S HALL, RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855. no. 1—1f.

AYER'S PILLS,

A new and singular y successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fevers, Gout, Hu nors, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the hears all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

DR. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the
HON. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINTHROP, Ex-Speaker of the House of Representatives.

ABBOTT LAWRENCE, Minister Plen. to England.

† JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, DR. J. K. CHILTON, Practical Chemist, of New York City, endorsed by

HON. W. L. MARCY, Secretary of State.

WM. B. ASTOR, the richest man in America.

S. LELAND & Co., Prop'r's of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been used, hut evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded not of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should prove as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulæ by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few would he taken if their composition was known! Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge on the subject freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by scientific men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal viscera to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their irregular action to health, and by correcting, wherever they exist, such derangements as are the first origin of disease.

Being sugar wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

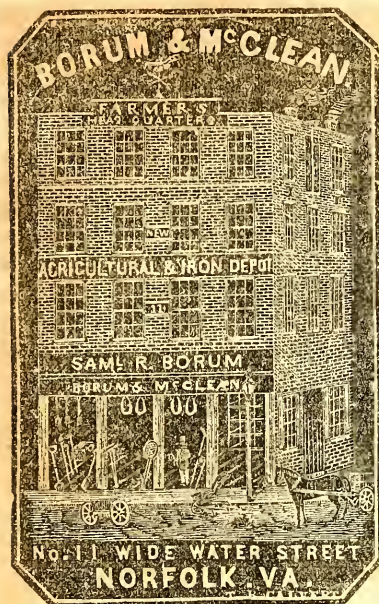
Practical and Analytical Chemist.

LOWELL, MASS.

PRICE 25 CENTS PER BOX. FIVE BOXES FOR \$1.

SOLD BY

P. F. Pescud and Williams & Haywood, Raleigh, N. C. March 1855, 15—y.



BORUM & M'CLEAN,

FARMER'S HEAD QUARTERS,

No. 11, Water-St.,

NORFOLK, VIRGINIA,

ARE NOW PREPARED TO FILL ORDERS FOR HUS-
sey's, Burrall's, or Atkin's Self-raking Reapers, at Fac-
tory prices, with or without front wheels, or platform for side
delivery. We have issued a Catalogue containing cuts of these
three kinds, with description and prices, warrantec, &c. and
we shall be pleased to mail a copy to all applicants.

HORSE POWERS. The best kinds in this country, of
Lever Machines for two, four or six horses, also

RAILWAY HORSE POWERS, for one and two horses, best
make.

THRASHING MACHINES, with wrought iron cylinders,
teeth fitting in with screw and tap, at \$45 to \$65 each. Also
cast iron Cylinder Thrashers, teeth fit in, in like manner, and
either kind warranted to perform well.

MACHINE BELTING from one to eight inches wide, con-
stantly on hand, of best quality, stretched and oak tanned, at
manufacturing prices. Wider sizes furnished at short no-
tice.

GRAIN CRADLES, of "Grant's patent," warranted the lightest, strongest and easiest working
Cradle in the world, with five and six fingers at \$5 and \$5 25 each, the fingers braced to the sneath
with strong wire and by means of thumb screws can be set in a minutes time, and remain perfectly solid
and stationary, has no wedge, to fall out and be lost, thereby losing time to make new ones.

GRASS BLADES, and Sneaths of various kinds.

PLOWS.—Three thousand constantly on hand of seventy-five different sizes and patterns to suit all kinds
of soil, embracing Sod and Sub-soil, Deep Stubble, two and three furrowed, Gang, Side Hill, Double
Mould, Sub-Soil, and Cultivating, Plows of best finish.

CULTIVATORS, with cast, wrought and steel hoes of several varieties, for Corn, Cotton and To-
bacco.

HARROW.—Expanding, Hinge, Double Scotch, "Geddes'" Folding, Stationary, Square, &c., made
light or heavy, of any dimensions.

STRAW CUTTERS.—Raw Hide, Cylinder Cutters, of five sizes, from \$7 50 to \$20 each. "Smith's"
Virginia Cutter, \$10 each. "Sinclairs," Screw Propeller, \$28 to \$30 each. "Daniel's" patent Shuck
Cutter, \$25 each.

Our Descriptive Catalogues, giving full particulars, with cuts, &c., will be mailed upon applica-
tion.

MONTGOMERY'S, Bam boroughs, Sinclair's, Clintons, and Grant's Fanning Mills at \$13 to \$65
each.

IRON DEPARTMENT.

150 tons English, Swedes and American Iron, all

20 tons Hoop and Band Iron, $\frac{3}{4}$ to 4 inches wide.

20 tons Oval, half Oval and half round Iron.

200 sets Coach and Buggy Axles.

300 pair do do Springs.

250 kegs Nails, 3 to 40d., cut and wrought.

50 dozen Files and Rasps.

50 Smith's Bellows, all sizes.

1500 pounds Cast steel Hammers.

70 American Star Anvils.

50 Vices, for Wood and Iron Work.

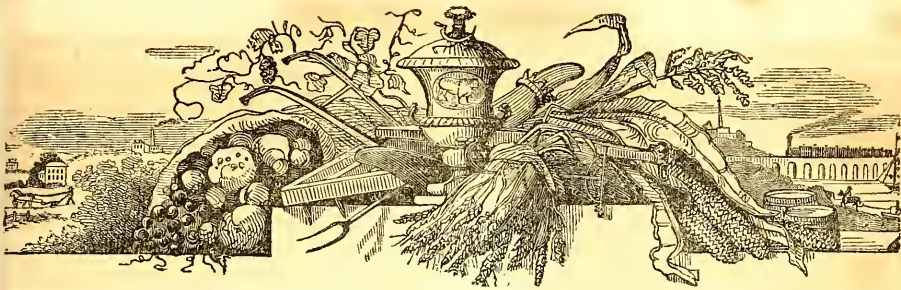
Stocks and Dies, Bench screws, &c., for sale on the best terms.

DEBURG'S Superior Phosphate of Lime, in barrel warranted a pure article at \$48 per ton.

All of the above goods will be sold to responsible Traders and Farmers, on accommodating terms. We
are now engaged in manufacturing Farming Implements, and guarantee to furnish a neat, and substantial ar-
ticles at as low prices as can be bought at in any market. Orders filled promptly.

May 1855.—n3.—12.

BORUM & M'CLEAN,
Norfolk, Va.



THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

WILLIAM D. COOKE, PUBLISHER.

VOL. 1.

RALEIGH, N. C., JULY, 1855.

NO. 5.

Suggestion about State Fairs.

As the season is approaching when the various State Agricultural Societies are to hold their Annual Exhibitions, the attention of officers and members, and of the agricultural community generally, is very properly directed to the subject of the proposed or anticipated management and display on such occasions.—The times and places of holding the principal Fairs having been designated and announced, those chiefly interested—the Farmers, Horticulturists and Mechanics who purpose attending, either as exhibitors or spectators—naturally desire to ascertain as to the prominent features, and what new attractions, if any, are to be introduced. Hence, not only the Premium Lists and regulations will be examined carefully, but many will look confidently for novelties and improvements in the detailed programme of each exhibition, and that society which shall combine the desired items and elements in the best manner, will, other things being auspicious, render its show the most attractive and successful.

But, says the reader, novelties and attractions are not indispensable; for people who desire to make money, secure premiums, or advertise, or procure animals, machinery, &c., need no such inducement. Aye, the class mentioned will be there—but, unfortunately for the success of the Society, and the cause of improvement, it is limited in number, though

quite influential. The great mass—the upper ten hundred thousand, if you please—are prompted to attend by other and very different motives. Many, perhaps the great majority, are induced to attend State Fairs from the promptings of fancy—a desire to see and hear new, strange and curious things—and hence the more attractive the programme, the greater the interest manifested in advance of the show, and the larger the attendance. The apparent disposition of many to seek amusement, and make simply holiday affairs of our large shows, is not over commendable we are aware, yet there seems to be a necessity for it in the tastes and inclinations of the American people. Not but what we are sufficiently practical and utilitarian, for the contrary is proved by our most prominent national characteristics. But there is at least one cogent reason why our State Exhibitions are, and will continue to be, resorted to by thousands for amusement and recreation. We have too few holidays. With the exception of Independence—the ever-glorious Fourth—we, as a Nation, have scarcely a day which is universally celebrated as a holiday. True, Christmas and New Year are holidays in our almanac, but they are not appropriately or generally celebrated by the great mass of the community.

Now we may mistake the public inclination and sentiment, yet the experience of the past indicates the necessity of adding novelties and improvements, each year, to the programme of

our own State Society's Exhibition. True, we cannot make a holiday which shall be universal throughout the State—for only tens of thousands, instead of thousands will be participants. The county and town Fairs will, however, afford the masses who cannot attend the State Show a convenient opportunity for useful and pleasurable recreation. We are convinced that the more novelty and amusement can be united with the useful and instructive features of all our Fairs—State, County and Town—the greater will be their success, and the more universal the benefit and satisfaction to community. Let us, therefore, have a holiday, or Rural Jubilee, on the occasion of every State Fair—appropriately celebrating and commemorating the bountiful harvests gathered, and rejoicing in the progress of Ruralists in wealth and intelligence—thus combining amusement and pleasure with the useful and instructive information derivable from the practical features of the exhibition.

But, while we would favor the introduction of novel and attractive features, we should oppose any diminution in the useful and instructive departments. On the contrary, we should urge increased attention and display in those branches of production and performance which are most novel, striking and instructive. The more general operation and trial of recent inventions and improvements in the department of Agricultural Machinery, &c., would, among other things, add materially to the interest of the occasion. And if arrangements could be made for discussions on practical subjects, during each evening of the Fair, the meetings would not only prove attractive but eminently beneficial. Instead of having simply an address or speech from some eminent politician or statesman, who would probably exalt every farmer in the land to the proud position of Cincinnatus, or a Washington, and talk profoundly of the duties of Congress toward the Agricultural interest, yet rarely *vote* for its promotion,—let us have discussions by practical and experienced men, on the leading branches and operations of Agriculture and Horticulture.—Discussions on such subjects as the Improvement of Stock, Grain Growing, the Dairy, Underdraining, Fruit Culture, &c., would, we are confident, prove both interesting and profitable to thousands who attend our State exhibitions. Let it only be understood that such topics are

to be discussed—that able and practical men are to preside and open the discussions—and there can be no doubt as to the result. We are aware that something has been attempted in this matter already, but not in a systematic manner. The discussions ought to be announced in the Society's programme, and the arrangements assigned to certain officers or a committee.

—This whole subject is one of primary importance to the officers of our State Agricultural Societies and the friends of improvement generally, and if our crude suggestions are not exactly to the point, we trust they may induce those more experienced to give the matter consideration.—*Rural New Yorker*.

From the Northern Farmer.

Sowing Peas as a Preparation for Wheat.

A subscriber wrote to us a few days ago as to the propriety of seeding peas upon the stubble of this year's wheat crop, with a view to seeding wheat upon the same land this fall on the pea fallow.

As a public answer will be of service, we will state here, what we saw a few days ago.

The fine farm of Pichonochee, on the Chikahominy, five miles from Richmond, must have been observed for several years by every one who has passed through it on the Central Rail Road. And not the least noteworthy feature is the field which lies broad side of the railroad, between it and the swamp, with a crop of wheat, now the third in succession, that, but for the drought, would have made some twenty-five bushels to the acre. We paid a visit to the worthy proprietor, Mr. Matthews, to get the history of that field, and now give it from notes made on the spot.

Mr. Matthews purchased the land in the year 1849 and seeded this particular field in wheat in the fall of that year. Its crop was not measured separately, but it did not exceed seven bushels per acre as a maximum. In the month of July, before the shocks of wheat were hauled out of the field, peas were sown on this field, at the rate of one bushel per acre, broadcast on the stubble, ploughed in with a one-horse plough, followed by a harrow, (or drag or rake, as we are sorry to see it improperly called in some places.) The peas were ploughed

under from the 20th September out, and wheat sowed upon the land. The produce was twelve and a half bushel of good wheat per acre.

In 1852 the land was planted in corn, and made six barrels per acre, and was again sown in wheat. In 1853 the wheat yielded sixteen bushels per acre, and was followed by peas and wheat as before. In 1854 the crop of wheat was twenty-three bushels per acre, and was again followed by peas and wheat. In 1855 the wheat is cut short by the drought, and from what we saw we think it safe to estimate that in a fair season it would have made twenty-five bushels per acre.

The land Mr. Mathew called stiff, but we who have stiff land, thought it a light soil,—clay with a fair admixture of sand. It had been previously owned by the Messrs. Haxall, and had never been limed by them. Nor has Mr. Matthews applied to it any other manure than what the peas themselves have furnished.

But whether with, or without lime, it is remarkable that six successive crops should have been removed from the land not only without any diminution of fertility, but with a rapidly progressive improvement.

Whether this mode of cropping can be judiciously applied to all lands, we cannot say.—We know from our own experiments, at Shadwell, and from the report of Mr. Noland's experiments at Rox, that it would not suit the southwest mountain lands, or the dry creek lands, generally thought the best of that region in Albemarle, and we doubt whether it would be proper in any lands that are already saturated with vegetable matter. Nor can we venture an opinion as to the time at which this rotation will cease to improve the land or the crop. But we are inclined to the belief that it will only produce more speedily that exhaustion in the product of wheat which we have been laughed at for maintaining as a consequence.

We prefer, now, not to encumber the statement of what appears to us as a very remarkable fact with any theory as to the operation of peas as a fertilizer, or the duration of the fertility they produce.

There are not facts enough known, or if known they are perhaps not yet so systematized as to authorize anything of the kind. But if a few

of our friends choose, they can, in a few years, by proper experiment, throw a great deal of light on this subject; and it is very evident that such experiments can be conducted for six or eight years without the loss of a cent, either in time or trouble.

In looking at the statement of Mr. Matthews, course of cropping it will strike the reader as singular that whereas after the first crop of peas, twelve and a half bushels only of wheat was made, after the corn crop which followed that wheat sixteen bushels was made.

From the Northern Farmer.

The Joint Worm.

NEW MARKET, Carolina Co.

April 13th, 1855.

To the Editor of the Southern Planter:

DEAR SIR:—As the season of joint worm and its ravages approaches, suffer me to invite your attention to a few reflections on the extermination of this pest, partly the result of my own observations. I have examined with some care and diligence the habits of this insect, since its first appearance afforded me an opportunity of studying its history and instincts, with the hope that a remedy might be discovered or plan devised which would afford a prospect of protection against what is inconceivably the worst enemy the wheat crop has ever had to contend against. That the crop will be entirely destroyed if the increase of this pest is in proportion to its past reproduction, no one can doubt who will look with a little attention into the matter. Two years ago it made its appearance in this neighborhood for the first time, and it will be within the bounds of reason, to assert that the increase in that time is a million-fold; and judging from the innumerable almost developed flies now to be found in the stubble where it has not been burnt or ploughed in, the ratio of increase will be kept up.

It strikes me forcible, that in view of the present and prospective value of the wheat crop, particularly to Lower Virginia, where we cannot make up the loss by grazing, as our lands are not adapted to grass, that this subject of joint worm, and its remedy is one of paramount importance. I do not presumptuously suppose that I can contribute aught on this subject which will be new to you, nor do I wish to accomplish more than to excite your

wonted energy and endeavor, if you think with me, to convince the farmers of Virginia, all of whom must act in concert, that it is extremely probable, at the least, that this terrible enemy of our prosperity can be destroyed, if with one accord they will it. Can the joint worm, (which by the way is not the proper name, as it is never found in the joint,) be destroyed sooner than the appointed time when nature will accomplish that desideratum, either by the production of some other insect or parasite at war with it, or by some inscrutable process which she will never divulge, even to the keenest observation? The solution of this question involves another: Has this insect special habits and instincts? Does it breed exclusively in the wheat or cereal family? Mr. Nowland, of Albemarle, who has studied the habits of this insect very closely, with care and attention, and with natural fitness for such research, assured me, in a conversation I had with him, that he had failed to find the little worm, the initial state of the fly, in any of the grasses, and that he believed it was to be found nowhere in the vegetable world, except in the cereal family. My own observation and researches lead me to the same conclusion, which analogy likewise strengthens. Certain insects have habits and insects as characteristic as we note among the members of the higher creation, and by which we always know them. They form the abode of their young, destined to preserve and perpetuate the species, in obedience to a law of nature which they cannot alter, and their instinct, obeying this law, drives them to certain plants which supply the proper condition for their development. Any one who will take the trouble to examine, will find that the worm, from which the fly, the perfect form of the destroyer, is evolved, always lodges through the winter in a cell invariably formed in the same part of the wheat plant. Pull up an old plant in a last year's stubble field, where the vast reproduction is now silently going on, and you may almost tell by the touch the number of larvæ or little worms it contains. Each cell or nodule slightly projects, with one worm in it, and lies in close contact with or by the side of, another, with distinct septa betwixt them, two worms never being found in one cell. The cells without exception are found in the foot stalk or petiole of the blade, between the point where it falls off from the straw and

its insertion around the margin of the joint.—The presence of these cells on the straw impeding the circulation, prevents the evolution and filling of the head, when the plant is not advanced to that state which our farmers call "in the boot," and when advanced to that stage, as the injury is generally more on one side than on the other, an excrescence is the result, and a bending down marks the presence of the enemy. The early attack produces what we term "sedging." Betwixt the outer and inner cuticle of the petiole or sheath of the blade is a pulpy cellular substance, very apparent in the corresponding part of the blade of the Indian corn, and precisely similar in structure in the wheat—which a common lens will display. In this cellular substance the fly always deposits its eggs, and the cells develop here by what appears to be a separation of the inner and outer cuticle of the said petiole which attaches the blade to the straw.

These minute details may appear trivial and of no practical importance; but I respectfully submit that they are by no means useless or contemptible in the settlement of the question upon which the destruction of the joint worm hinges; that is, whether or not it is peculiar to wheat, oats or rye. Observation fails frequently from the minuteness of the object; and here naturalists know, analogy steps in oftentimes, and supplies the proof, otherwise imperfect. I have heard that the fly came out of broom sedge, from the woods, and from many other sources, but have failed to find any evidence of a positive character that this famine-producing development is going on in any grass or weed which I have inspected—and I have looked with great interest for such evidence. Admit that from the minuteness of the object sought, it may escape the closest scrutiny, still, in the absence of one single unmistakable worm lodged in other plants, or weeds, or grasses, (which has not been found,) analogy and the laws of nature assert that, as certain physical traits characterize the reproduction of this fly it must of necessity come from where the proper conditions of its well-being and reproduction are supplied; which we have seen, as to locality and structure, are so uniform. Many believe that the supply comes from woods, &c., from the fact that the edges of fields are most injured.

This may be accounted for in two ways: the

fly evidently seeks the shade, for it is almost always, while depositing its eggs, found under the blade, to one side; and hence the deformity in some cases. Or it may be driven by winds against fences, and stopped by woods which border fields, from whence it gets back to its work of mischief. These, however, are mere suggestions, and nothing more. Some other cause may determine its works to the margins of fields; but it is almost certain, however, that it has only the one source which I have indicated.

Well, now, it will be asked, how educe the remedy, the all-important practice, from what you will perhaps consider theory in great part? I answer, that in my opinion the establishment of the one fact, that joint fly invariably and of necessity comes from the same source, and that the stubble or old straw, the remedy is available. Let every wheat-growing farmer change his system, if it be necessary, for a few years, and put the wheat land of the year before in corn, or at all events let it be ploughed soon enough for the cells containing the worm to rot, when they must of necessity perish.

All straw should be passed through the farm pen, hauled out and ploughed in by the 15th of April, the stack yard, and residuary straw burnt, relying even on leaves for bedding for horses. With the present value of wheat, which must rule high while the war in Europe lasts, is it not worth the expense (if there be any,) and pains of the farmer to adopt these precautions for a few years? When the fields can be burnt in very dry weather, so as to destroy all the diseased stubble, it would doubtless be equally as effective; but this cannot be done; for where there is least cover generally there is most joint worm, and this plan cannot therefore be effectual, for there are always spots which will not burn. The plough in time is the remedy. The farmers in my neighborhood propose to change their system for this object; but to be effectual it must be universal. I repeat earnestly, that the remedy is practicable, and in most cases the plan will give little additional labor, and will not be more exhausting. Those who have time and teams may fallow the stubble, as I have done this spring, and sow peas for another crop of wheat the following fall.

Several systems might be indicated by which

little additional labor will be entailed, and the land improved, which your practice will suggest. To cause such a plan as I propose to be generally adopted would, perhaps, require some action on the part of the Agricultural Society of the State, the Executive committee of which might induce committees in the different counties to urge the farmers of their counties to act with one accord in this all important matter.—Let the effort be made, at all events. To make the ploughing more effectual, a roll should precede the plough to make the stubble flat. I find whenever the diseased straw lies on the ground in a depression, where it is in contact with water for a few days, the worm perishes. I therefore infer that it is not very tenacious of life.

I have given you these reflections for whatever they are worth; such thoughts, and more valuable, may have occurred to you, and doubtless have come to you from many intelligent sources. My aspirations reach no further than to urge you, if this skeleton of a plan be deemed of any practical value, to lend your energies to the task, and convince the farmers of Virginia, if it can be done, that joint worm shall be destroyed.

Very truly your friend.

JNO. ROY BAYLOR.

May 8th.

P. S.—You will see by the date of the above letter, that it was written several weeks ago, and not sent, because I fancied in my daily examinations of these insects, that a change has been in progress, which I thought might be the result of the dry, warm weather, at that time, likely to rid us of this nuisance without any agency of man; but alas! the three or four days dispel the fond hope, for they have come upon us in numbers far exceeding my gloomiest forebodings.

The worm has passed through the latter stages of its development more slowly however this year than it did last. I saw the fly hatched out in the open air last year the 23d of April: the first evolved this year came out on the 10th of May. What the injury to the crop of wheat from the vast inroads of myriads of these flies at a time when the plant is enfeebled by the protracted drought, will be, is really disheartening to anticipate.

Sincerely,

J. R. B.

Medical Use of Vegetables.

Blood Root.—The root is the part used in medicine. It should be gathered late in the fall or very early in the spring. Few plants have been held in as general estimation as Bloodroots, and it is certainly a most valuable remedy in various diseases. It may be administered either in the form of powder or tincture. The latter is the most used, and is made by pouring half a pint of alcohol and half a pint of water on an ounce of the root, allowing them to remain fourteen days and filtering through paper. Its dose is from ten to thirty drops, given two or three times a day. The powder is given in doses of from one to eight grains.—Its taste is acrid and bitter, burning the mouth and throat, and when powdering it, care should be taken to keep a cloth over both pestle and mortar, to prevent the dust flying round, as it will bring on inordinate sneezing and irritation in both mouth and throat. Large doses of from eight to twenty grains are sometimes given; but these are dangerous, causing heart-burn, sickness at stomach, general weakness, fainting, dimness of sight, and often severe and protracted vomiting. In doses of two grains it excites sickness at stomach without being emetic, and in this way proves useful in inflammations of various organs. In doses of half a grain it lowers the pulse and gives tone to the system. Ten drops of the tincture acts as a stimulant, and induces profuse sweating. A few drops of the tincture taken in water every morning will strengthen the system by giving tone to the stomach. Bloodroot is used in the cure of long standing diseases of the chest and liver, asthma, dysentery and inflammatory rheumatism. Applied externally; in powder or a wash, it cures foul ulcers, polypus of the nose, fleshy excrescences in various parts, and ill-conditioned tumors. To cure tumors in the nose, it must be snuffed up. Some rely on it to cure the croup; by giving it in ten grain doses, so as to produce an immediate vomiting. Though the dry roots keep very well, it soon loses its power after powdering or mixing with other substances. Farriers use the leaves of Bloodroot in diseases of horses, to make them sweat and change their coats. The seeds should never be given.

THE DANDELION has long been a successful and favorite household remedy in diseases of

the liver, whether eaten as a salad in early spring, or taken in the more medicine-like form of decoction or extract. The decoction is made by taking of the bruised root two ounces, water two pints; boiling down to one pint, and straining. The dose is a wine-glassful three times a day. The extract is prepared by adding a pound of the root, coarsely cut up, to one gallon of water, and boiling down to four pints, straining while hot, and then evaporating to such a thick consistence that it will be hard when cold. As it loses its powers by keeping, it should be freshly prepared every year. The dose of the extract is from twenty to forty grains, given three times a day, and is most conveniently given in any of the mint waters.

The Yellow Dock may be usefully added to this, in the proportion of an ounce to a pint of the decoction recommended above. It may be given at any time when there is not much irritation about the stomach and bowels. The juice of the leaves is highly esteemed in Germany, in gravel, itch, and most diseases of the skin. Cases of dyspepsia have been much benefited by a wine-glassful of the decoction taken every morning. When there is a peculiar blueness about the whites of the eye, denoting, according to some medical writers, disease of the spleen, Dandelion will be found almost uniformly beneficial. Taken in regular doses, it keeps the bowels gently open, induces a free, but not too copious perspiration, and the ladies will also find something in the plant good for them, as the milk juice of the stems removes freckles.

SWEET FLAG.—The roots are warm, aromatic and bitter. The infusion is made by pouring a pint of boiling water on an ounce of the roots, straining when cold: dose, a wine-glassful three times a day. An extract is made from it, and given in doses of twenty to twenty-five grains. In dyspepsia, where there is wind on the stomach, it is extremely useful, and will also prevent colics, if taken in time. The wind colic of infants is easily cured by giving them a teaspoonful of the warm infusion.

In fever and ague, where many other remedies have failed, this has cured, in doses of thirty grains in substance repeated at intervals before the coming on of the attack. Chewed in the mouth, it has produced a copious flow of saliva, and in this manner cured the tooth-ache. The roots are sometimes boiled in sugar, and

eaten as an agreeable aromatic preserve. Its strong smell prevents its being eaten by cattle or insects, even moths will not come near it; the roots are therefore useful to preserve clothes when packed up.—*Book of Herbs.*

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From the Country Gentleman.

Proper time for Cutting Grass.

For more than thirty years it has been a common saying among farmers, that timothy hay should not be cut until ripe—that is, until the heads were plump and full of seed. I was raised in a country where grass was thought ready to cut as soon as it was large enough; and after I came here, I followed through the same practice, although in opposition to the opinion and practice of many of my good neighbors. I followed the practice so long, and had so many opportunities to prove it, that I know to a certainty that my practice is right. For some eighteen years past, I have used mostly timothy hay. Previous to that, I used more clover. Very often I have not been able to get it all cut before harvest; and having several cattle and sheep yards, some one lot of cattle had to eat the ripe hay, and I am perfectly sure that it is a great loss to let timothy hay get anything near ripe; in fact, whenever it begins to come in blossom, it is time to begin cutting. If there is much to cut, and not plenty of hands, some will then get too ripe. I would prefer good wheat straw, cut before it is too ripe, to ripe timothy for either sheep or cattle.

A number of years ago, I built a cow house, and that season I cut my timothy hay earlier than usual. I stabled my cows for the first time that year; fed them the early cut timothy hay, and took every possible care of the cattle, but they became poor, would eat but little of my green hay, and by spring the cows and young cattle were overrun with lice, and poorer by far than I ever had cattle. I concluded I had cut my timothy hay too green, and that my neighbors were partly right. Next season I let it get nearly ripe, but my cows did no better. I then concluded it must be stabling, and took out my stalls and turned my stables into sheds. After that my cows got fat on green hay. After I began to fatten cattle extensively, I found out that my cow stables were not thoroughly ventilated, and this was

the only reason they did not do well in their stables.

The loss farmers sustain by letting their hay get too ripe, is immense. I would rather have four quarts of meal per day, with good green timothy hay, than to have a peck with ripe hay, to fat a steer with. Cut grass or clover green, cure in swath or cock, and it will make either sheep or steers fat in five months without grain if they are properly attended to, but still it is more profitable to feed part grain.

I have wintered this season about 200 sheep on wheat straw, with one bushel of oil cake meal to the 100 sheep per day, and now they are fat, although but thin when I bought them.

JOHN JOHNSTON.

New Geneva, April 3, 1854.

To which the editor adds the following remarks:

We believe with our correspondent, that the loss sustained by our farmers, by too long a delay in cutting their grass is immense. It is a subject to which we have frequently called the attention of our readers for the past year. Both science and experience demonstrate that the proper time for cutting grass is when it is in blossom. A writer on the scientific principle, in the process of hay making, lays down the following rules:

1. Grass must be fully developed before it is mown; if not, it will be found in its early stages to contain so much water as to be reduced, on drying, into so small a compass, that it will in quantity much disappoint the haymaker.

2. It must not be permitted to stand until its seeds are formed, much less ripe. All plants in arriving at maturity have their starch and sugar gum in large quantities converted into woody fibre—a wise provision of Providence for enabling the stem to bear matured seed—and as sugar, gum, and starch are nutritive elements, it is desirable that they should be preserved, and hence the point for successful grass-cutting is that between the full development of the plant and before the formation of the seeds; in other words when they are in flower.

A government report, published in the Edinburgh Quar. Journal of Agriculture, on the "chemical properties of grass and hay as food for cattle," says—"If as we have endeavored to show, the sugar is an important element of the food of animals, then it should be an object

with the farmer to cut grass for the purpose of hay-making at that period when the larger amount of matter is contained in it. This is assuredly at an earlier period of its growth than when it has shot into seeds; for it is then that the woody matter predominates—a substance totally insoluble in water, and therefore less calculated to serve as food to animals than substances capable of assuming a soluble condition. It ought to be the object of the farmer to preserve his hay for winter use in the condition most resembling the hay in its highest state of perfection.

We add to the above, the testimony of several careful and observing farmers.

C. N. Bement—Was formerly in the habit of cutting his timothy quite late, because it was easier cured after it got pretty ripe; but he ascertained, from careful experiment in using hay thus cut, that it wanted substance, and that the best time for cutting hay was when the grass was in blossom.

Sanford Howard—The stems of grasses were filled just before the formation of the seed, with a starchy or saccharine substance. In perfecting the seed, the stems were exhausted of this substance, it being consumed in forming the seed. The plant should be cut before the nutriment has passed from the stems.

W. H. Sotham—Would as soon have good bright straw for cows or sheep, as timothy hay cut after it has gone to seed. Cuts all his hay early. There was another great advantage in cutting early—the roots retained their life and strength better, and the after feed and future crop were more abundant.

J. Pratt—Commences cutting his hay generally before any one else thinks of it, or as it begins to blossom, and gets help enough to cut it all as soon as possible. He has kept a dairy of sixty cows for nine years, and attributes his success with his cows, and the fine healthy appearance of his other stock, mainly to early cut hay.

We annex an article from the *Working Farmer* on cutting hay, believing that we cannot serve the interests of our readers better than by laying before them at this time the opinions of gentlemen of experience in different sections of the country. It is said that "in a multitude of counsel there is wisdom," and we have no doubt that a large portion of what we now select will be read with interest.—*Ed. N. Farm.*

HAY MAKING.—In the northern portion of the United States thousands of tons of hay are annually made from natural and cultivated grasses; also from the different species of clover, millet and lucerne. The long, severe winters prevent the growth of green herbage, and renders it necessary to store up sufficient food for farm stock, until merry spring again assumes her robes of green. It is far from our intention to enter into the pleasures of hay making, although it be still fresh in our memory.

If the dumb beasts could "speak out their hidden thoughts," we doubt not many of them would complain of hay made from grass cut when dead ripe, or improperly cured, and stored in such a state as to become mouldy, and entirely unfit to afford nourishment.

That there is so much miserable hay made, and so little attention paid to the proper cultivation of choice grasses, is due in part to the fact that a great mass of the farming community are entirely ignorant of the processes of assimilation by which animals obtain their increase of mass from the food they consume. It would occupy too much time to go into detail on this point, but we will state a few general facts which may elucidate it. All vegetable substances are composed of three classes of bodies: 1st, ash or mineral portion left on incineration; 2d, bodies formed of carbon, oxygen and hydrogen, such as starch, sugar, woody fibre, fatty matters, vegetable oils, etc.; 3d, such substances as the gluten of wheat, albumen, etc., of vegetables generally, composed of the four organic constituents—carbon, oxygen, hydrogen and nitrogen. From the first class are the formed bones and the ash of blood and meat. The second undergo various changes in the stomach, and are stored up as fat. The oxygen taken in the lungs enters the blood, travels with it through the whole system, comes in contact with the fat, and combines with it, forming, with the carbon of the fat, carbonic acid, with the hydrogen, water, passes into the lungs, and is exhaled. During the process of union of the oxygen with fat, heat is liberated, or, in other words, a slow combustion goes on, which forms animal heat. Hence, this class of bodies is said to support the process of respiration.

The third class go to form muscle, flesh, etc., they being almost identical in composition.—The grasses contain all these bodies, but in ve-

ry different proportions, some being highly nutritious, while others are not by themselves proper food for animals. In their green state, when cropped by cattle, as in pasture, or fed in stables, where the system of soiling is adopted, they are capable of fattening both horses and cattle. In this state the plant is succulent, and much more readily assimilated than when dried.

During the process of curing, a portion of the starch, sugar, etc., is changed to woody fibre, thus rendering it less nutritious. If left until too ripe before being cut, or exposed, after cutting, too long to sun and wind, it rapidly loses its nutritive properties. If stored in a green state, fermentation takes place, and carbonic acid and alcohol (neither of which are nutritious) are formed. A species of mould is frequently to be found in such hay, which is poisonous when taken into the stomach, and the fine dust arising from it is also injurious to the lungs when breathed by animals. Fed upon such hay, it is no wonder that animals fail in health and strength, give but a small quantity of milk, and that of poor quality.

If profit is to be realized from cattle, they should be supplied with the best food, and in sufficient quantities to answer all the demands of a natural appetite.

Boussingault instituted many experiments to ascertain the comparative nutritive properties of different substances. He assumes that the nutriment should be rated according to the amount of nitrogenous bodies they contain, and assumed meadow hay as a standard, containing, as it does,

1.15 per cent. of	-	-	-	Nitrogen.
Aftermath, 2 per cent.	-	-	-	do.
A choice sample of the best hay, 1.17	do.			
The flower, 2.10	-	-	-	do.

In this country no extended experiments have been made, having for their object a comparison of the nutritive properties of the grasses. Mr. Sinclair, gardener to the Duke of Bedford, made a series of experiments with a great number of English grasses, and tabulated the results; but from the manner in which they were conducted, no reliance can be placed on them. His method was to take a given quantity of each of the dried grasses and boil it in water until it had dissolved all it was capable of dissolving. He then evaporated the water, and took the dry matter as a representative of

the nutritious portion. This is, however, very far from being a correct method of arriving at the truth, because the circumstances under which a species of grass may be produced, such as the kind of soil upon which it is grown, manures used, age at which it is cut, and the method of curing, vary the result. Then, too, there is much, which would be termed insoluble in water, and hence unnutritious, which animals can digest; for instance, woody fibre may, by the action of acids, be changed into soluble gum or sugar. We know that the dung of animals contains less woody fibre than the food which they have eaten. Hence, some portion must have been assimilated, and has probably been changed by the action of acids in the stomach into a soluble form. The vegetable albumen, fibrin, casein and legumin are not soluble in water, and are coagulated by boiling water. They require ether or alcohol to effect their solution. Hence, it is evident that the elaborate experiments of Mr. Sinclair have failed to prove of much value to farmers.

The relation of green to dry fodder, as to nutrition in comparative amounts, depends very materially on the meteorological influences of the season, the manures used, and the state of the plants when cut. There is one fact, however, which is known to all observant farmers--that is, the reduction in amount of milk, and in flesh of animals when they are removed from pasture and fed on dry hay. This is no doubt due to the fact that the substances composing grass are more easily assimilated than in a succulent form. Boussingault says:

"The state of dryness of certain kinds of forage may have a marked influence on their nutritious qualities. They may even decline in nutritive value by the process of drying, so that analysis of itself may lead us into error in regard to the nutritive value of dry articles of food. Breeders have in fact long suspected that green fodder is more nutritious than dry fodder; that grass, clover, etc., lose nutritious matter by being made into hay. That the thing is so in fact, appears to have been demonstrated by a skilful agriculturist, well acquainted with the art of experimenting, who found that 9 lbs. of green lucerne were quite equal in foddering sheep to 3.10 lbs. of the same forage made into hay, while he, at the same time, ascertained that 9 lbs. of green lucerne

would not on an average yield more than 2.02 lbs. of hay. In allowing each sheep 3.3 lbs. of lucerne hay as its ration, consequently, it was as if the animal had had 14.34, or more than 14.25 lbs. of the vegetable for its allowance."

And "there is a further saving of expense in the making of hay, and the escape of all risk of bad weather during the process. Still, because 100 of green clover or lucerne represent 23 of the same article dried, the feeding properties of the two are not represented by the ratio of these two numbers to each other. The true relation, according to experiments of M. Perreault, is as 8 to 3. Some allowance must be made for loss of leaves and nutritious portions during process of curing."

Green clover, on the average, may be considered as consisting of—

Clover Hay, - - -	29.85
Water, - - - - -	70.15
	<hr/>
	100.00

As extremes of our experiments in 1841, we add—

Clover Hay, - - -	35.7	25.0
Water, - - - - -	64.3	75.0
	<hr/>	<hr/>
	100.0	100.0

Crome and Einhof give the proximate composition of the green stems of clover, lucerne and buckwheat.

	Green pea stalks.	Red Clover.	White Clover.	Lucerne.	Green stalks of Buckwheat.
Water, - - - - -	80.0	76.0	80.0	75.0	82.5
Starch, - - - - -	3.40	1.4	1.0	2.2	4.7
Woody fibre, - - -	19.31	13.9	11.5	14.8	10.0
Sugar, - - - - -	4.55	2.1	1.5	0.8	—
Albumen, - - - -	0.90	2.0	1.5	1.9	0.2
Extractive matter and gum	0.65	3.5	3.4	4.4	2.6
Phosphate of Lime, -	0.19	1.9	0.8	0.8	?
Wax and Resin, - -	—	0.1	0.2	0.6	?
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	100	100	99.9	100	100

The practice of pouring boiling hot water upon cut hay, or of softening it by the use of steam, is excellent, as it renders it similar to grass. The use of root crops in winter produces good results, which are, no doubt, in part due to the supply of succulent food.

The best time for cutting grass varies with season, climate and varieties. Timothy always makes the best hay if cut when the seed is in the milk state, or just changing from milk to

dough, which is readily ascertained by pinching a seed between the thumb and finger.—This occurs about a fortnight before ripening, and when the plant contains the largest amount of sugar, starch, etc. If allowed to perfect, the soil will be exhausted to a greater extent, and the growth of aftermath will be light. For young stock, and milch cows, it is more tender when cut just as going into flower.

Orchard grass should be cut in flower, as it is then preferred by stock. Cut at this time it will spring up rapidly, and afford two or three crops of aftermath. As this grass comes to perfection about the same time with clover, they may be grown together. Great care should be exercised, however, in selecting kinds of grass when about seeding down a meadow, as they differ materially in time of perfecting.

Clover should be cut in full flower; if allowed to ripen its seed, the greater part of the leaves and tender plants will crumble off, and prove a total loss.

CURING HAY.—We have already spoken of woody fibre as the leading ingredient in hay, and also stated above, that in curing, it should not be allowed to ferment, as that would result in the decomposition of a portion of the nutritious elements, and the formation of carbonic acid and alcohol.

The object to be attained in curing hay is to get rid of the excess of water, (amounting to from 40 to 70 per cent.,) in which many of the nutritious substances are in semi-solution. To effect this, shake up the hay lightly, but do not leave it exposed to the sun for any length of time. Do not fear to stir hay when wet with dew, as the morning breezes will soon remove all dampness. In moist climates, like that of England, the tedding machine is kept in motion most of the time, in order to avail of the short space of sunshine. If properly constructed, they may be used here with advantage, as our skies are so clear and cloudless that we suffer from the direct rays of the sun. There was one on exhibition at the fairs last fall, but we have had no opportunity to test its merits.

Hay cut and properly exposed to the air during the day, may be thrown into light windrows, or cocks, to remain over night, tossed early in the morning to get air, and again recocked. This process of cocking and recocking should be repeated until thoroughly cured.—

uch treatment will produce hay of a rich green color, and delightful fragrance, and will require salt to preserve it.

Damp grass and clover, when stored as such, are benefited by a dressing of from four to sixteen quarts of salt per ton. It is an excellent plan to use alternate layers of straw in storing imperfectly cured hay; it will to a certain extent absorb the excess of moisture, and also prevent it from becoming so compact as to be injured by heating.

Clover requires more careful manipulation than common meadow grasses, and is generally cured with good success by first turning the swath so as to allow the air to act upon the under side, then throwing into small sized cocks for a day, turning them out, and after airing, putting two, three, or four in one, always being careful not to allow the slightest fermentation.

When well cured, clover makes an admirable hay for milch cows, sheep, and young stock, but is not considered so good for horses.

Hay caps, made by sowing two strips of cotton drilling together, and cutting them so as to form a square, are used in many sections of the country for throwing over the tops of haystacks to protect them from the ill effects of rain. They should have small stones, or other weights, of sufficient size, sowed in the corners, to keep them in their place. The expense is but trifling, and the saving by their use will redeem them in one season.

STORING HAY.—Stacks should be commenced by building a platform of logs or stones, so elevated as to allow a circulation of air beneath, otherwise the hay will become mouldy; cover the bottom of the stack with some clean, dry straw, or last year's hay, to a depth of one or two feet, then lay on the hay in even forksful. In the centre of the stack, and before placing any hay, stand in an upright position a round, smooth stick or tube of light wood, having two pegs inserted opposite each other, near the top, by which to lift it up. This stick should be about four feet long, and from eight to twelve inches in diameter. As the stack progresses this must be elevated, thus leaving a chimney for ventilation. When the stack is completed, the whole should be covered with a thatch or water proof canvas. In feeding off the hay, it is well to make use of a hay knife to cut down one portion for immediate use, in order to prevent the exposure of too much surface at once.

Hay is frequently stored in mows resting directly on the ground; this should never happen, as such hay will be productive of injurious results to cattle fed upon it.

There are many plans existent for unloading hay, and thus lightening the labor attendant upon growing so bulky a crop. The economical construction of such contrivances must depend on existing circumstances, hence no directions can be given which would admit of general application.

The use of a good mowing machine should not be omitted by any farmer who possesses a farm of fair surface, as more hay can be secured in good order by its use, at less expense, than by the labor of ten or twenty men cutting grass by hand, besides cutting the grass closer, and with more regularity, thus giving a fairer chance for an even growth of aftermath.

The best patterns of horse rakes should also be used, and above all, a better article of hay should be produced, both for the credit of the farmer, and the well being of the stock.

Immediately after the removal of a crop of hay, the field should be irrigated, if it be situated so as to admit of it. If not, deluge the whole surface with liquid manure, dilute, conducted through pipes from the tank, and spread by the use of a hose, or by water carts constructed for the purpose.

Should it be impossible to get liquid manures, apply a top dressing of home-made poudrette, or guano, composted with ten times its bulk of charcoal dust, wetted slightly with dilute sulphuric acid, or better still, as experience has proved on many soils, from one to two hundred pounds of Mapes' Improved Superphosphate of Lime, if it can be obtained.

The English farmer who pays a rental of five to seven pounds sterling per acre, cannot afford to lose the opportunity of procuring three or four crops of grass from the same spot of ground during the season. For this reason they adopt the plan of top dressing with liquid and concentrated manures. There are a few instances in this country where the same system is adopted, and there are thousands of acres to which it might be applied at slight cost.

H. C. VAIL.

The storm spares the reed, and breaks the cedar.



Imperial Gage Plum.

A Hint.

Friend Adams :—Permit me through the columns of your paper, to urge upon my brother farmers, the importance of turning their attention to the raising of roots more extensively for the purpose of wintering stock. The scarcity and consequent high price of hay, and grain, if there were no other reason, should induce every man in the State who has an acre of land or even less, to set apart a portion of it for that particular purpose.

I wish more especially at the present time, to call the attention of that class to the subject who do but little farming, and who keep but a single cow or horse. It matters not whether

he styles himself a farmer, mechanic, or merchant, or whether he belongs to any other class, he has a common interest with those who, till the soil, and should co-operate with them.

I would propose to all such to plant one-eighth of an acre of carrots, as soon as the weather is warm and dry. The labor of cultivation will be trifling, and the amount of carrots, if a fair yield, will be a hundred bushels or more. This would give a cow a half bushel per day—two hundred days or more than half a year. I have no doubt but the animal would be grateful, and the owner find his reward. I do not ask who will try it, but I do ask who will fail to do so.—*Granite Farmer*.

Washing Windows.

A correspondent of the *American Agriculturist* gives the following improved mode of washing windows, which, although not altogether new to us, may be valuable to many of our readers :

I have a great aversion to scouring knives, and never touch brick-dust if I can help it; but their brightness depends on me, I prefer to rub them three times a day rather than once, for it is less labor, and they last longer.

The nicest article for washing windows is deer-skin, as no particle comes off to adhere to the glass and make it look as if washed with sponges. There is no need of anything larger, than a hand basin for washing windows. The great splashing some people make in the exercise of their art is entirely useless, and is, moreover, deleterious. When the water is permitted to run down in large quantities over the glass, it dissolves the putty and soon loosens the panes from their setting, and also stains the glass. Two pieces of wash-leather and a bowl of suds are all that are necessary. Wipe the glass first with the wet cloth or leather, and when it has become dry, with the clean cloth, and it will look clear, and far more so than if rubbed in a dozen pails of water.

HOW TO WHITEN LINEN OR CALICO.—When linen or calico is discolored by washing, by age, or lying out of use, the best method of restoring the whiteness is by bleaching it in the open air, and exposure on the grass to the dews and winds. There may occur cases, however, where this may be difficult to accomplish, and where a quicker process may be desirable. Here the art of chemistry may assist, and the following directions have been given by an eminent practical chemist: The linen must first be laid for twelve hours in a ley formed of one pound of soda to a gallon of boiling-hot soft water; it must then be boiled for half an hour in the same liquid. A mixture must now be made of chloride of lime with eight times its quantity of water, which must be well shaken in a stone jar for three days, then allowed to settle, and being drawn off clear, the linen must be steeped in it six and thirty hours, and then washed out in the ordinary way. This will remove all discoloration.

Baths.

A little more about bathing, a subject we shall never have done enforcing on our readers' attention. There are all sorts of baths—hot, tepid, vapor, shower, plunge, hip, &c., &c. Hot and vapor baths are for the sick, and are *extremely* useful. A vapor bath, for those who suffer from rheumatism or gout, may be made thus: Place a bucket of boiling water under the chair on which you are seated, causing yourself, bucket, chair, and all, to be surrounded with blankets. When the vapor decreases, the bottom of the blanket may be lifted, and a hot brick dropped into the pail. The plunge bath is not so accessible. It is cold, or cool; and one or two plunges and out again will produce more benefit than to remain in it, we speak especially of weak or sick people. The shower bath we do not recommend at all. It may do for men or women in the prime of life and health, but not for children and old people. The best bath, on the whole, for sick or hale, is the hip bath. Fill your bath with water, cold if you can possibly bear it (and if you are well;) at any rate, merely tepid. Move your limbs well in the water for a quarter of an hour, get out, and rub yourself with a couple of rough towels till your skin begins to resent the usage. If you have no regular bath, fill a big pan or washing-tub, get into it, and sponge and sluice yourself well. It is as good a bath as any.

HOW TO DESTROY RATS.—Sir Humphrey Davy recommends the following recipe as being tasteless, odorless, and impalpable. Carbonate of barytes, two ounces, mixed with one pound of grease. It produces great thirst, and death immediately after drinking, thus preventing the animals going back to their holes. To prevent accident to dogs, cats, and poultry, it should be spread on the inside of an iron or tin vessel hung with wire, bottom upwards, over a beam, just high enough for a rat to pass under easily.

TO FATTEN FOWLS.—The best food for fattening fowls is potatoes mixed with meal. Boil the potatoes and mash them fine while they are hot and mix the meal with them just before it is presented. They fatten on this diet in less than half the time they do on corn.

From the Northern Farmer.

On the Culture of Flax.

MR. MINER :—I wish to offer a few hints on the culture of flax. Linseed oil and linen are two valuable articles of commerce ; the former is extracted from the seed of flax, and the latter is made of its fibres. The ground on which flax seed is to be sown, should be plowed early in the spring ; and sometimes it is necessary to cross-plow it, in order to render it as mellow as possible. Then the seed should be cast into the ground thus prepared, to the amount of a bushel per acre. If a less quantity is used the stalks will be too large, and the fibre too coarse for fine linen. The land best suited for flax is a loamy soil, mixed with clay, and the flax seed may be sown after a crop of corn, or potatoes, or it may be sown on sward land well turned up. Any field that will produce wheat, corn or oats, is good for flax. When the stalks are full grown, and begin to turn yellow, and a third of the leaves have fallen off, then is the time to pull the flax. When you pull the flax, you must spread it evenly in rows, and let it thus remain till it is sufficiently cured or dried. Then you must bind it in bundles, convey it to the barn, beat off the seed, and stow it away. The next process is to *dew-rot* it. This is done by spreading it out in some convenient field, and letting it remain there till it is sufficiently rotted to enable one, by means of a *brake* and *swing*, to separate the *shivers* from the fibres. This is the old method of dressing flax ; but there is now a kind of machinery used for this purpose which far surpasses the old mode, both in respect to time, labor and cheapness.—This machinery perfectly separates the *shivers* without injuring the fibre, and thus renders the flax more valuable. No good reason can be assigned why the raising of flax may not be a profitable crop, especially if linen manufactories should be established in our country. Now we import annually, linen to the amount of some fifteen millions of dollars. This enormous expense might be saved to the country if flax were cultivated more extensively among us, and then manufactured into cloth. Were linen manufactories established in various parts of our land, the demand for flax would be ten fold greater than it is now. It is almost needless to add that the culture of flax is almost entirely omitted in some parts of our country,

because the demand for it is very limited. It is believed, however, that the time is not far distant when a greater importance will be attached to the flax crop, and when farmers will find it for their interest to engage more extensively in its cultivation.

M. W. ADCOCK.

Port Royal, Montgomery Co., Tenn.

Seed Potatoes.

I am pleased to see that you "are not ready to adopt the conclusion" that small potatoes are as good as large ones for seed. I have planted large and small, side by side ; with the same treatment, for three or four years past, with results invariably in favor of large seeds. In one instance, the proportion was nearly as three to one. I have once, and I believe only once, obtained a good crop from small seed ; but the soil and locality were peculiarly favorable to the production of a good crop ; and as in this case, no comparative experiment was tried, no just conclusion can be drawn from it in reference to the question of using large or small seed. I would propose that each reader of the Farmer, who cultivates any land, would plant three or four rows with large seed, and as many adjoining them with small seed, of the same variety, soil and treatment being the same, harvest them and weigh them separately, and report to the Farmer for publication. Such a course would help settle the question.—*Ind. Farmer.*

Premiums. It seems to me, that if, instead of offering premiums of questionable utility, Plowing Matches, which teach nobody how to plow, counterpanes made by wasting time in cutting calico into bits and sewing them together again, &c., &c.) the officers of our agricultural societies would take pains to ascertain what new agricultural implements have been made, or what improvements made in the construction of old ones, what new or improved seeds have been or might be introduced, the use of which might be beneficial to the farming community,—and would take proper measures to have them tried under the supervision of committees appointed for the purpose—it would be productive of more benefit to the public.—Trials of implements should not be made at the time of the Fair, when every thing is done in a hurry, but at the proper season for using them.—*Farmer.*

DR. STRONG'S COMPOUND SANATIVE PILLS

These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Scrofula, Salt Rheum, Fevers of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of Piles, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also

DR. STRONG'S PECTORAL STOMACH PILLS

A remedy for Coughs, Colds, Catarrh, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a deranged state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, in weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expectorant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Syrups, Balsams, or Sarsaparillas, that were ever made; and a simple trial of only one box will prove this important truth.

They promote Expectoration, Loosen the Phlegm, and Clear the Lungs and other Secretory Organs, of all morbid matter, and there is no other remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. They Cure Costiveness, produce a good, regular Appetite, and Strengthen the System.

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the *Planter's Almanac* GRATIS, giving full particulars and certificates of cures.

Both kinds of the above-named Pills are for sale in Every Town and Village in North and South Carolina.

And at Williams & Haywood, Raleigh, N. C.
May 1855. 3—

TO PLANTERS.

THE UNDERSIGNED HAS BEEN appointed Agent for the sale of "KETTLEWELLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of CORN and COTTON, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to its yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by HENRY NUTT, Agent for the State of North Carolina, at Wilmington. 3—

PURE MERINO SHEEP FOR SALE.

I HAVE A FEW YEARLING RAMS, AND Ewes, from one to three years old, which I will sell. Also three Rams older, and very choice. They can be sent to any part of the country with safety—For prices, &c., apply to T. C. PETERS, Darien, Genesee Co., N. Y. May 1855. tf—

NORTH CAROLINA MUTUAL LIFE INSURANCE Company, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the MUTUAL PRINCIPLE, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$30, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 90 days after satisfactory proof is presented.

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JAMES F. JORDAN, *Secretary.*

NORTH CAROLINA

MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

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Henry D. Turner, do.
J. R. Williams, do.
T. H. Selby, do.
C. W. D. Hutchings, do.
James F. Jordan, do.
James M. Towles, do.
James E. Hoyt, Washington.
Alex. Mitchell, Newbern.
Joshua G. Wright, Wilmington.
John M. Jones, Edenton.
W. W. Griffin, Elizabeth City.
F. F. Fagan, Plymouth.
W. N. H. Smith, Murfreesboro'.
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This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam

Mills and Turpentine Distilleries,) upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid.

J. C. PARTRIDGE, Sec'y.

Raleigh, Jan. 9th, 1855.

ENGLISH CATTLE, SHEEP AND SWINE.

AL SO Mules and Merino Sheep from Spain. Selected and imported on commission to any Atlantic sea port in America, by Thos. Betts & Co., at Liverpool and Herts, England.

Circulars containing the prices of all kinds of English Stock, and the expenses from England to America, including insurance can be received by applying personally or by post to G. M. Miller 81 Maiden Lane, New York City. Agent for

THOS. BETTS & CO.

FARMER'S HALL, RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855.

no. 1—tf.

AYER'S PILLS,

A new and singularly successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fever, Gout, Hu nors, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c. &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the hearses all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

Dr. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

HON. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINTHROP, Ex-Speaker of the House of Representatives.

ABBOTT LAWRENCE, Minister Plen. to England.

† JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, Dr. J. R. CHILTON, Practical Chemist, of New York City, endorsed by

HON. W. L. MARCY, Secretary of State.

WM. B. ASTOR, the richest man in America.

S. LELAND & Co., Prop's of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been used, but evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded not of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should prove as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulæ by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few would be taken if their composition was known! Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge on the subject freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by scientific men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal viscera to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their irregular action to health, and by correcting, whenever they exist, such derangements as are the first origin of disease.

Being sugar wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

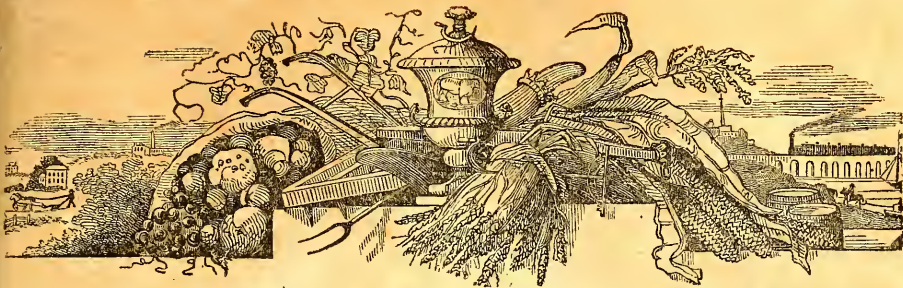
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Devoted to Agriculture, Horticulture, and the Mechanic Arts.

WILLIAM D. COOKE, PUBLISHER.

VOL. 1. RALEIGH, N. C., AUGUST, 1855. NO. 6.

LIST OF PREMIUMS,

To be awarded at the Union Agricultural Fair to be held in Henderson, N. C., on the 10th, 11th and 12th, Oct., 1855.

Branch 1st—Live Stock. FIRST DIVISION.

First Class.

For the best Stallion over 4 years old \$4 and Cultivator or Arator.
For the 2d best Stallion over 4 years old \$2 and Cul. or Ara.
For the 3d best Stallion over 4 years old, 1st diploma.
For the best Brood Mare, \$2 and Cul. or Ara.
“ 2d “ “ 1st dip.
“ 3d “ “ 2d dip.
“ best Colt over 2 years old and under 3, \$2 and Cul. or Ara.
For the 2d best Colt over 2 years old and under 3, 1st dip.
For the 3d best Colt over 2 years old and under 3, 2d dip.
For the best Colt over 1 year and under 2, \$1 and Cul. or Ara.
For the 2d best Colt over 1 year and under 2, 1st dip.
For the 3d best Colt over 1 year and under 2, 2d dip.
For the best Colt over 1 year old, Cul. or Ara.
In this class purity of blood, size and form, will be taken in consideration.

Second Class—Harness, Draught and Saddle Horses.

For the best Saddle Horse, \$3
“ 2d “ “ 1st dip.
“ 3d “ “ 2d dip.

For the Fastest Pacing Horse, \$1
“ 2d “ “ “ 1st dip.
“ 3d “ “ “ “ 2d dip.
For the best pair Matched Carriage Horses, \$3 and Cul. or Ara.
For the 2d best pair Matched Carriage Horses, \$1 & C. or A.
For the 3d best pair Matched Carriage Horses, 2d dip.
For the best Single Harness Horse, \$3
“ 2d “ “ “ “ 1st dip.
“ 3d “ “ “ “ “ 2d dip.
For the Fastest trotting “ “ \$1
“ 2d “ “ “ “ “ 1st dip.
“ 3d “ “ “ “ “ “ 2d dip.
For the best lot Farm Horses not less than 3, \$3 and Cul. or Ara.
For the 2d best lot Farm Horses not less than 3, 1st dip.
For the 3d best lot Farm Horses not less than 3, 2d dip.
For best Heavy Draught Horse, \$2 and Cul. or Ara.
For 2d best “ “ “ “ 1st dip.
“ 3d “ “ “ “ “ 2d dip.

In this class, form, durability and kindness in harness are to be chief points of merit.

Jacks and Jennetts.

For the best & largest Jack, \$4 and Cul. & Ar.
“ 2d “ “ “ “ 1st dip.
“ 3d “ “ “ “ “ 2d dip.
For the best Jennet, \$1 and Cul. or Ara.
“ 2d “ “ “ “ 1st dip.
“ 3d “ “ “ “ “ 2d dip.

MULES.

For the best pair Mules, \$2 and Cul. or Ara.
“ 2d “ “ “ “ 1st dip.
“ 3d “ “ “ “ “ 2d dip.

" the best Single Mule,	C. or A.	Largest Killing Hog,	\$2 and C. or A.
" 2d " " "	1st dip.	" 2d " "	1st dip.
" 3d " " "	2d dip.	" 3d " "	2d dip.

SECOND DIVISION.

CATTLE.

For the best Bull over 3 years old,	\$3 and Cul.
or Ara.	
For the 2d best Bull over 3 years,	1st dip.
" " 3d " " "	2d dip.
For the 2d best Bull under 3 years old,	\$1 and
Cul. or Ara.	
For the best Milch Cow,	\$3 and Cul. or Ara.
" 2d " " "	1st dip.
" 3d " " "	2d dip.
For the best Heifer 3 years old,	\$2 and Cul. or
Ara.	
For the 2d best Heifer 3 years old,	1st dip.
" " 3d " " "	2d dip.
For the best Heifer 2 years old,	\$1 and Cul. or
Ara.	
For the 2d best Heifer 2 years old,	1st dip.
" " 3d " " "	2d dip.
Best pair Work Oxen,	\$2 and Cul. or Ara.
" 2d " " "	1st dip.
" 3d " " "	2d dip.
Best Heifer Calf under 2 years old,	\$1 and Cul.
or Ara.	
2d Best Heifer Calf, under 2 years old,	1st dip.
3d " " " " "	2d dip.
Best Bull Calf under 2 years old,	\$1 and Cul.
or Ara.	
2d Best Bull Calf under 2 years old,	1st dip.
3d " " " " "	2d dip.

THIRD DIVISION.

SHEEP.

For the best Buck,	\$2 and Cul. or Ara.
" 2d " " "	1st dip.
" 3d " " "	2d dip.
Best Pen of Ewes not less than 4,	\$2 and
Cul. or Ara.	
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
Best Pen Lambs not less than 4,	\$1 and
Cul. or Ara.	
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.

FOURTH DIVISION.

SWINE.

Best Boar of any Breed,	\$2 and C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" Breeding Sow,	\$1 & C. & A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
Best lot of Pigs not less than 6,	\$1 and C. or A.
" 2d " " " " "	1st dip.
" 3d " " " " "	2d dip.
Best lot of Pigs not less than 3,	C. or A.
" 2d " " " " "	1st dip.
" 3d " " " " "	2d dip.

POULTRY.

For the best pair	Shanghais,	\$1
" 2d " " "	"	1st dip.
" 3d " " "	"	2d dip.
For the " " "	Dorkings,	\$1
" 2d " " "	"	1st dip.
" 3d " " "	"	2d dip.
" the " " "	Polands,	\$1
" 2d " " "	"	1st dip.
" 3d " " "	"	2d dip.
" the " " "	Brahmas,	\$1
" 2d " " "	"	1st dip.
" 3d " " "	"	2d dip.
" the " " "	Game,	\$1
" 2d " " "	"	1st dip.
" 3d " " "	"	2d dip.
" the " " "	Dunghill or Common	fowl \$1
" 2d " " " "	"	1st dip.
" 3d " " " "	"	2d dip.
" the " " "	Turkeys,	\$1
" 2d " " "	"	1st dip.
" 3d " " "	"	2d dip.
" the " " "	Geese,	\$1
" 2d " " "	"	1st dip.
" 3d " " "	"	2d dip.
" the " " "	Ducks	\$1
" 2d " " "	"	1st dip.
" 3d " " "	"	2d dip.
Largest variety fowls exhibited by one per-	son,	\$3

Branch Second.

AGRICULTURE.

First Class.

For the best sample Wheat,	\$1 and C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" the " " "	Indian Corn, \$1 & C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" the " " "	Leaf Tobacco, \$1 & C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" the " " "	Corn Fodder, \$1 & C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" the " " "	Rye, \$1 & C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" the " " "	Oats, \$1 & C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" the " " "	Beans & Peas \$1 & C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" the " " "	Cotton, \$1 & C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.
" the " " "	Pea Vine Hay, \$1 & C. or A.
" 2d " " " "	1st dip.
" 3d " " " "	2d dip.

" the "	"	Grass Hay,	\$1 & C. or A.
" 2d "	"	" "	1st dip.
" 3d "	"	" "	2d dip.
" the "	"	Sweet Potatoes	\$1 & C. or A.
" 2d "	"	" "	1st dip.
" 3d "	"	" "	2d dip.
" the "	"	Irish "	\$1 & C. or A.
" 2d "	"	" "	1st dip.
" 3d "	"	" "	2d dip.
" the "	"	Turnips,	\$1
" 2d "	"	" "	1st dip.
" 3d "	"	" "	2d dip.
" the "	"	Beets	\$1
" 2d "	"	" "	1st dip.
" 3d "	"	" "	2d dip.
" the "	"	Carrots,	\$1
" 2d "	"	" "	1st dip.
" 3d "	"	" "	2d dip.
" the "	"	Onions,	\$1
" 2d "	"	" "	1st dip.
" 3d "	"	" "	2d dip.

Vegetables of extra quality will receive each fifty cents.

For the largest average product per acre throughout the entire crop of wheat, corn, tobacco, oats and cotton, each, \$2 & C. or A. Certificates to accompany these products, stating their yield per acre.

Second Class.

FOOD CONDIMENTS, &c.

For the best sample	Pickled Beef,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Pork,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Lot Hams,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Jar fresh Butter,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Jar Butter over 6 months	old, \$1
" 2d "	" "	1st dip.
" 3d "	Jar " "	2d dip.
" the "	Honey,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the best Specimen	Wheat Flour, \$1 &	C. or A.
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the best specimen	Corn Meal, \$1 & C. or A.	
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the best specimen	Domestic Starch,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
Cakes, Bread, Crackers, &c., each,		50 cts.
For the largest and nicest variety of Preserves, Pickles, Jellies, Jams, Catsups, Syrup, &c.,		\$2

Nicest sample of either,	50 cts.
Best sample dried Fruits, each,	\$1
Largest variety dried Fruits exhibited by one person,	\$1
Best sample Domestic Wine,	\$1
The mode of preparing each of the above must accompany them in writing.	

Third Class.

HORTICULTURE.

For the best sample	Apples,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Peaches,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Pears,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Quinces,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Figs and Grapes,	\$1
" 2d "	" "	1st dip.

Largest variety fruits exhibited by one person, \$1 & C. or A.

FRUIT TREES.

For the best variety	Apple Trees,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Pear Trees,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	Peach "	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the best	Strawberry & Raspberry Vines,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.

Largest variety Fruit Trees exhibited by one person, \$2 & C. or A.

Branch Third.

MECHANICS.

First Class—Plows, &c.

For the best	Plow of each kind,	\$1 & C. or A.
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	best Farm Gate,	Cul. or A.
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the "	best Sythe,	\$1
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.

SECOND CLASS.

For the best 4	Horse Wagon,	\$4 & C. or A.
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.
" the best 2	horse wagon,	\$2 & C. or A.
" 2d "	" "	1st dip.
" 3d "	" "	2d dip.

" the best 1 horse wagon,	\$1 & C. or A.	" the " Buggy Harness,	\$2
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
" the best Ox Cart and Yoke,	\$1 & C. or A.	" the best Gents' Saddle and Bridle,	\$2
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
" the best Wheel Barrow,	\$1	" the best Ladies' Saddle and Bridle,	\$2
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
" the best 2 horse Pleasure Carriage,	\$4 & C. or A.	For the best set 2 horse wagon harness,	2 00
" 2d " "	1st dip.	" 2nd best, " "	1st dip.
" 3d " "	2d dip.	" 3rd best, " "	2d dip.
" the best 2 horse Rockaway or Top Buggy, \$2 & C. or A.		For the best set 1 horse wagon harness,	1 00
" 2d " "	1st dip.	" 2nd best, " "	1st dip.
" 3d " "	2d dip.	" 3rd best, " "	2d dip.
" the best 1 horse Rockaway or Top Buggy, \$1 & C. or A.		For the best Bridle or Halter,	1 00
" 2d " "	1st dip.	" 2nd best, " "	1st dip.
" 3d " "	2d dip.	" 3rd best, " "	2d dip.
" the best 1 horse open Buggy or Sulky,	\$1 & C. or A.		
" 2d " "	1st dip.		
" 3d " "	2d dip.		

Third Class. MACHINERY.

For the best Sweep Horse Power, \$2 & C. or A.		For the best Bed Stead,	1 00
" 2d " "	1st dip.	" 2nd best, " "	1st dip.
" 3d " "	2d dip.	" 3rd best, " "	2d dip.
" Railway Horse Power, \$2 & C. or A.		For the best Cradle or Crib,	1 00
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
" Corn or Cob Crusher, \$1 & C. or A.		For the best Rocking Chair,	1 00
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
For the best Broadcasting or Drilling Machine for Grass or Grain \$2 & C. or A.		For the best 1-2 doz. Common Chairs,	2 00
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
" the " Cotton Gin, \$2 & C. or A.		For the best Centre Table or Wash Stand,	1 00
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
" the " Wheat Fan, \$1 & C. or A.		For the best Sideboard,	1 00
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
" the " Corn Sheller, \$1 & C. or A.		For the best Desk or Book Case,	1 00
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
" the Straw or Shuck Cutter, \$1 & C. or A.		For the best Hair or Moss Mattress,	2 00
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
		For the best Shuck or Cotton Mattress,	1 00
		" 2d " "	1st dip.
		" 3d " "	2d dip.
		For the best Sofa, Settee or Lounge,	2 00
		" 2d " "	1st dip.
		" 3d " "	2d dip.
		For the best Wardrobe,	1 00
		" 2d " "	1st dip.
		" 3d " "	2d dip.

Premiums on articles in the last class will be given without regard to the place of their manufacture. The price of each machine must accompany it.

Fourth Class. SADDLERY, &c.

For the best set carriage Harness,	\$3	For the best pair Gent's Boots,	2 00
" 2d " "	1st dip.	" 2d " "	1st dip.
" 3d " "	2d dip.	" 3d " "	2d dip.
		For the best Gent's or Ladie's Shoes,	2 00
		" 2d " "	1st dip.
		" 3d " "	2d dip.
		For the best pair Brogans,	1 00
		" 2d " "	1st dip.
		" 3d " "	2d dip.

Sixth Class—Shoes, Hats, &c.

For the best Plantation Hat,	1 00
" 2d "	1st dip.
" 3d "	2d dip.

Seventh Class—Sundries.

For the best Sample Leather,	\$1, C. & A.
" 2d "	1st dip.
" 3d "	2d dip.
For the best Dressed Sheep or Calf Skin	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best Sam. Manf. Tobacco,	\$1, C. & A.
" 2d "	1st dip.
" 3d "	2d dip.
For the best Sample Cigars,	\$1, C. & A.
" 2d "	1st dip.
" 3d "	2d dip.
For the best Sample Tallow Candles,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best Soap.	1 00
" 2d "	1st dip.
" 3d "	2d dip.

Branch Fourth.*First Class—Household and Mill Fabrics.*

For the best piece Woolen Jeans,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best piece Lindsey or Kersey,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best Stout Negro Cloth,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best piece of Flannel,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best Woolen Blanket,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best piece of Carpeting,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best Hearth Rug,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best White Counterpane,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best Colored Counterpane,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best Bed Quilt,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best piece Bed Ticking,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best piece Flax or Tow Cloth,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best pair Yarn Socks,	50
" 2d "	1st dip.
" 3d "	2d dip.

For the best pair Cotton Socks,	50
" 2d "	1st dip.
" 3d "	2d dip.
For the best made Gent's Coat,	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best pair Gents' Pants,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best Gents' Vest,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the best made Gents' Shirt,	1 00

Second Class—Ladies' Ornamental Needle Work, &c.

For the nicest Piano Cover.	2 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest Ottoman Cover,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest Divan Cover,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest Hand'chief, Embroidered,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest pair Sleeves,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest Collar,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest Cap,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest Chemesette,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest Child's Shirt,	1 00
" 2d "	1st dip.
" 3d "	2d dip.
For the nicest pair Gaiters,	1 00
" 2d "	1st dip.
" 3d "	2d dip.

Paintings, Drawings, &c., will receive discretionary premiums, and articles omitted in this list will be awarded premiums in proportion to those named.

Branch Fifth.

EXPERIMENTS AND ESSAYS.

1st.—For the best mode of Cultivating Corn. How the land should be prepared. When the grain planted. When and how the fodder saved, and the corn gathered, &c.

\$2, Cul. & Ara.

2nd.—For the best mode of cultivating and preparing Tobacco for market, \$2, Cl. & Ar.

3rd.—For the best mode of Cultivating Wheat, and the value of Guano on Worn out lands for raising Wheat, its permanency, &c.
\$2, Cl. & Ar.

4th.—For the most effectual plan of restoring worn out lands. What manure to be used, and the quantity and cost per acre.

\$2, Cl. & Ar.

5th.—Benefit derived from draining lands,

\$2, Cl. & Ar.

6th.—Benefit derived from plowing under a crop of peas, preparatory to sowing Wheat or other grain. What pea to be used.

Cul. & Ara.

7th.—Value of Orchards to Farmers. How planted and cultivated to render them most useful.

Cl. & Ar.

8th.—Value of Hedges as fences. How planted and Cultivated efficiently to keep out stock.

Cl. & Ar.

9th.—Different modes of plowing, and their applicability to soils and crops.

Cl. & Ar

Rules and Regulations,

FOR THE GOVERNMENT OF THE FAIR.

1.—Persons wishing to become members of the Agricultural Society, can join, by paying one dollar, which will entitle them to a badge of membership, and admit their wives, and children under 12 years old.

2nd.—The Fair Grounds will be open for the reception of Visitors, at 12 o'clock on Wednesday. Price of Admission 25 cts; children and servants half price.

3rd.—All exhibitors are earnestly requested to have their articles on the grounds by five o'clock, p. m., on Tuesday, so that they may be properly arranged before Wednesday morning, as nothing will be admitted for a premium, after 10 o'clock, on Wednesday.

4th.—All animals and articles must be regularly entered on the Secretary's book. They will then be properly labelled and arranged on the ground for inspection of the judges.

5th.—Exhibitors are expected to give attention to their animals, on exhibition, and must bear the expense of feeding. Provisions may be had on the ground at market price.

6th.—The awarding Committees are particularly requested to report themselves to the Chairman Ex. Committee on the grounds, by 10 o'clock, Wednesday morning, to receive instructions.

7th.—The Judges must report in each class, the three finest articles. The first to take the premium, and the others, two diplomas.

8th.—To promote the Agricultural Interest of the country, the Ex. Com. have made arrangements to give out a good many copies of the Cultivator and Arator, as premiums. The persons receiving more than two premiums, marked Cultivator or Arator, are not required to take but one copy of each, and will be paid the remainder in money.

9th.—Persons contending for premiums must be a resident of either Granville, Franklin or Warren Counties, except for machinery, mentioned in Branch 3rd, class 3rd.

10th.—The Chief Marshal, with efficient aids, will be on the grounds during exhibition hours to keep order. And, a diligent police will attend at night to prevent accident. The committee will not hold themselves liable for any that may occur.

11th.—The Marshals are expected to appear on horseback, and report themselves to the Ch. Ex. Com., at 10 o'clock, on Wednesday, ready to enter on duty.

12th.—Friday at 11 o'clock, an Agricultural Address will be delivered.

A good band of music will be in attendance each day.

By order Ex. Com.,

G. W. BLACKNALL,

Chm. Ex. Com. Granville co. Ag. So.

On the Importance of Ventilating Stables to Prevent Disease.

BY G. H. DADD, V. S.

"Prevention is cheaper than cure."

We feel that we are but performing a duty which should not be omitted, in calling the earnest attention of those interested, to the following common-sense remarks of Dr. Dadd, which we copy from the Massachusetts Ploughman upon a subject of universal importance:—*Am. Farmer.*

It was the intention of the Creator, that all animals, so long as they were permitted to exercise their natural instincts, and thus comply with the requirements of physiology—the science of life—should enjoy health and long life. Hence a great amount of disease and death results from evils of domestications.

One of the conditions, which physiology imposes, in order that a horse shall enjoy health, is—that the atmosphere, at all times, and under all circumstances, shall be uncontaminated, so that the blood shall be decarbonized and purified of the defiling elements acquired in the course of circulation.

Let the reader understand that the lungs are something like a sponge, elastic, composed of a myriad of cells. In the former, however, these cells have a vast internal surface, communicating with each other up to their common origin, the bronchial tubes and windpipe. On their internal surface we find a delicate yet highly important membrane permeable to atmosphere; in extent, it is supposed to occupy a square surface equal to that of the external body. In contact with this membrane comes the atmos-

phere. If pure—zephyr-like—it fans into a healthful blaze the flame of life, upheaving from the Vesuvius arid lava, in the form of carbonic acid gas, almost as destructive to animality, as that issuing from its great prototype to vegetation.

The stable atmosphere being pure, and the lungs in working order, the blood is well arterialized, capable of supplying the waste of the animal machine and renovating its tissues.

On the other hand, should the atmosphere be impure, it fails to vitalize the blood; the latter is unfit for the purpose of nutrition, and may be considered a non-supporter of vitality. Hence the need of pure air, the breath of life.

But, are horses always furnished with pure air? Let the owner of unventilated, crowded, filthy, down cellar and low roofed stables answer.

Let those who have stables in the region of swamp, sewer, and stagnant pools of water, answer.

In such locations disease and death run riot; and the noble companion of man instead of being within the ramparts of the science of life, is on the margin of death's domain. He may exist for several days without food and water; yet the consequent result is nothing, when compared to that occasioned by breathing an atmosphere highly charged with emanations, arising from his own body, excrements, and decomposing bedding.

A horse is said to consume, in the lungs, in the course of twenty-four hours, ninety-seven ounces of carbon, furnished by venous blood; in order to perform this feat he requires 190 cubic feet of oxygen. Now suppose there are ten horses occupying the stable, they require in the same time 1,900 cubic feet oxygen, and consume nine hundred and seventy ounces of carbon.

They are supposed, also, to give out from the lungs a volume of carbonic acid gas, equal to that of the oxygen inspired; and supposing the atmosphere to be saturated with only five per centum of the former, it is a non-supporter of life.

Hence a horse shut in an unventilated stable must sooner or later become the subject of disease; the evil may be postponed, but the day of reckoning is sure and certain.

Diseases, such as horse-ail, influenza, catarrh, strangles and glanders, often originate and prevail to an alarming extent in the unventilated stable and pest spot; while in other locations, the favored ones seem to enjoy a remarkable immunity from the prevailing disease, or epizootic.

Stablemen and husbandmen are often led to remark, that when they keep but few animals, disease and death, except in cases of accident or old age, are quite rare, but so soon as they crowded the same, sickness add death, were the consequences.

In view of supporting this theory, I may be permitted to remark that ship and jail fevers may be manufactured "ad libitum," at any time when a large number of persons are congregated together in a given space: no provision having been made for the admission of pure air.

The unfortunate prisoners in the "Black Hole" of Calcutta, are an example, and the mortality occurring on board our emigrant ships furnishes another illustration.

A number of horses were once shipped from England to Spain, and on the passage, a violent gale arising, it became necessary to batter down the hatchway; the consequence was that most of them ultimately died of either glanders or farcy.

I contend, therefore, that the active or morbid germ of disease enters the living citadel through the pulmonary tissue, in an insidious manner; and therefore much oftener than the generality of men would be likely to realize. Therefore it is a matter of vital importance that attention be paid to the ventilation of our stables.

If proper sanitary regulations were established, and fully carried out in all our stables, glanders and other infectious diseases would be exceedingly rare; they are so, among horses free from control of man; whose stalls are broad, as from ocean to ocean, their height ranging from earth to regions above; the space pervaded by a pure atmosphere concocted by the Great Chemist, pure as the pearly drops, and refreshing as the morning zephyr.—In such locations death hath no terrors nor disease any victims.

Therefore, I entreat the husbandman to ventilate his stable, and thus prevent unnecessary disease.

G. H. DADD.

Agricultural Branch of the Patent Office.**THE CAROB TREE, OR ST. JOHN'S BREAD.**

Of all the seeds imported by this office for the purpose of distribution, there is not one more interesting or more valuable than those of the Carob. The pods, when matured, contain a few drops of a substance resembling honey. The tree is unquestionably of Eastern origin, and it is supposed to be identical with that upon which St. John fed while in the wilderness.

The seeds were procured for the office from Alicante, in Spain. In Murcia, Valentia, Catalonia, and other provinces in that country, it abounds and frequently forms, with the olive, and other valuable trees, large forests. It was without doubt, introduced there by the Moors, who knew its nutritive qualities as a food for their horses, mules and cattle. They probably brought it from Palestine and Egypt, whence it appears to have originated. In these Spanish provinces it now grows naturally in every kind of ground, not excepting the driest and most barren spots, where the underlying rock shows itself more frequently than earth. Its roots, twisting in every direction, accommodate themselves to the lightness or depth of the soil; while the trunk, remarkable for its smooth and light colored bark, attains in sheltered positions a colossal size.

The branches, furnished with greyish colored leaves, spread majestically around the trunk, and when loaded with fruit, hang down quite to the ground in the form of a tent. The fruit ripens rapidly, and such is its abundance and weight that it is necessary at once to gather it. The pods are sweet and rich in sugar, and animals feed on them with avidity, and become quite fat and in good condition for work. There are several varieties of the tree. The produce is necessarily in proportion to the attention given. It blooms twice a year—about the first of February and the middle of September—and when well watered, arrives at a considerable height, and sometimes covers a space of one hundred feet in diameter, bearing upwards of a ton of pods. It will doubtless succeed in the Southern, and perhaps in the Middle States.

PUMPKINS AND SQUASHES OF AMERICAN ORIGIN.

The common field pumpkin, as well as

squashes, properly so called, is believed to be of American origin, as will appear from the following remarks by Dr. T. W. Harris, of Harvard University, in Cambridge, Massachusetts:

"Accident led me some four years ago to undertake the investigation of the history of squashes and pumpkins, which has led to quite interesting results. Most of the older and well-known species and varieties were by modern botanists supposed to have come originally from Asia, and particularly from India. This I have proved to be an error, and have shown that these fruits were wholly unknown to the ancients, no mention being made of them in the Scriptures, nor by Greek and Latin authors; the writers of the middle ages, while they describe or take note of other cucurbitaceous plants, entirely omit pumpkins and squashes; and these did not begin to be known and noticed in Europe till after the discovery of America.

Early voyages found them in the West Indies, Peru, Florida, and even on the coast of New England, where they were cultivated by our Indians before any settlements were made here by the Europeans. The old botanists who flourished during the first century after the discovery of the New World, or the West Indies, began to describe them for the first time, and give to them specific names, indicating their Indian (American) origin. Here arose the mistake of modern botanists in referring these plants to the East Indies and also to Asia.

"From a study of the history of the plant, I went next to a study of the species, with particular reference to their botanical characters, and to this end have been cultivating and examining every year all the kinds accessible to me.

I think I have established the facts that all the fruits known by the names of pumpkins and squashes, are of American origin; that there are three distinct groups of them; the first including summer squashes that have shells when ripe; the second, the winter squashes and pumpkins, with deep, five furrowed fruit stems; and the third, the winter pumpkins and squashes, with short, cylindrical, and longitudinally wrinkled, (but not five furrowed) fruit stems. The last group was, probably, originally confined to tropical and sub-tropical parts of the

western side of this continent, from California to Chili. The most esteemed varieties now cultivated in New England belong to this group, and the best of them are the 'autumnal marrow,' and 'acorn squashes.'"

Mulching Newly Planted Trees.

Those who have set out trees this spring must see to them, lest the drouth may dry them so thoroughly that they may die.

To prevent this it will be useful to mulch them—that is, cover the ground over the roots, with some substance that shall keep the moisture about them, or in other words keep them, from drying up. A great variety of substances are useful for this purpose, such as muck, leaves from the wood, spent tan, saw dust, &c. We have used shavings from the turning lathes and from the planing machines with very good effect.

A writer, (Mr, L. H. Spear, of Brandon Vt.,) in the Plow, Loom and Anvil, recommends spent tan, and also sawdust for the purpose, having tried it about some cedars, (*Arbor Vitæ*) that he had set out.

The following is an extract from his communication:—

"We set on the same grounds, also, about fifteen rods of *Arbor vitæ* hedge. We mulched them also with sawdust, and there was not one failure.

Last June I set a quantity of *arbor vitæ* on a bank, close to the wall, I put about two shovels full of spent tan around each tree; and although they were set just as the extremely dry season commenced, not one of them died, although we did not water them.

Villages are frequently built on alluvial soil, and then it is often extremely difficult to make trees flourish. Those who wish to ornament their gardens will find that a liberal supply of sawdust or spent tan added to the soil, either by mixing with it or as a top-dressing, is very advantageous.

Either of the above substances, which are usually considered worthless, and can be had in abundance near all our villages, will many times pay the expense of hauling and applying. Adopt this treatment, and those trees which usually appear sickly in mid-summer will be of a darker hue, and their broad leaves

will shelter you from the scorching heat of a summer's sun.

I have no doubt that near almost every country village, sufficient quantities of sawdust and tan are wasted yearly to top-dress the ground under 5,000 trees.

Let me advise you, then, to apply it to your alluvial soils, and your villages will no longer have the appearance of being built in a desert, but rather in the luxurious soil and in the balmy climate of the Indies."—*Maine Farmer.*

Preserving Fruits.

Fruit of almost every description may be preserved by packing it in kiln-dried bran.—Sand is frequently used for the same purpose; but it is a ponderous article, and on several accounts far less eligible than bran. Dr. Underhill, of the New York Farmer's Club, stated, some years since, that a friend of his obtained a quantity of ground cork in which grapes had been imported. He dried it thoroughly in a kiln, and packed some grapes in it, which kept sound and good till the following July. He also remarked that he had succeeded in preserving grapes in kiln-dried wheat bran, and that in preserving all fruits, they should be kept as cool as possible, without incurring danger from frost. The temperature, therefore, ought never to be below 32 deg., nor above 35 degs.

Mr. Hall, at one of the meetings of this club, remarked that the Spanish export more grapes than all the rest of the world, and that they preserve them by packing them in kiln-dried oak saw-dust, and hermetically sealing the vessels in which they are deposited. Noah Webster, of Lexicon, and spelling-book memory, was accustomed to preserve his apples in sand. Plaster of Paris is also had recourse to by many for the same purpose; but it is no less objectionable than the latter article, being heavy and difficult to handle. I had apples and pears preserved in an excellent state till August in the following manner. As soon as the weather becomes cool, pick the fruit carefully from the boughs by hand, placing them one by one in a basket to prevent bruising. Spread them for a week or two in a cool place, and then envelope each apple closely in paper.—Have a clean barrel, well lined with cotton bat-

ting or old newspapers, and pack in the enveloped fruit as closely as it can be placed; head the barrel carefully, and set it away, and they generally keep sound and good.—*Germantown Telegraph.*

Keep Fruit Trees Straight.

Trees in an open exposure often acquire a leaning position from the prevailing winds.—This should not be suffered beyond a certain stage of the tree. When as large as one's wrist, they should be set up erect, and indeed, thrown into the wind at an angle of ten or fifteen degrees; in order to bring them ultimately into a straight position. This is best done by obtaining crocket limbs from the woods, 8 to 12 feet long, and placing the butt end, which should be sharpened, on the ground, and the crotch end either against the trunk, immediately beneath the branching point, or against a large outer limb, if more convenient, securing it from chafing in the crotch, by a padding of straw, or litter, and setting the tree at once up to the desired angle of elevation. Loosen also, the ground windward side of the root, so that it will not bind, and the work is accomplished. Let this be done when the tree begins to make its summer growth, or soon after leafing out.—One season, if the tree is thrifty, will be all that is required. If, however, it be obstinate, repeat the trial another year. The remedy is sure.

Even large trees, which have acquired a permanent lean, may be thrown into an erect posture, by loosening earth at the root, and occasionally cutting an obstinate large root, without injury to its growth, and thus be made slightly.

An erect tree will be longer lived and more fruitful than a leaning one, and not half so subject to casualty as if left to its own guidance.—*Exchange.*

GLUE FOR PLANTS.—It is reported that, in France, for the generality of flowers, and more especially for the most delicate specimens of the lily tribe, common glue, diluted with a sufficient portion of water, forms a richer manure than guano, or any other yet discovered; plants placed in sand, or the worst soils, display more beauty and vigor, when watered with this composition, than those grown in richest mould, and sprinkled with water.

A Short Chapter on Horses.

We are very glad to be able to record the fact, that farmers are paying increased attention to the improvement of their horse stock. The stimulus of "Agricultural reading," and of minds of many persons, in regard to what is the proper stock for farmers to breed.

The wise breeder keeps control over the laws of reproduction, by a judicious selection of breeding animals; and crosses with an intelligent understanding of what the cross will produce, in "outline," and in anatomical and physiological peculiarities. He is a poor machinist indeed, who does not become familiar with the requirements of an engine, an economical expenditure of power in a given direction, and a poorer still, who does not familiarize himself with the tone, and elastic properties of metals, that he may select with reference to the dissimilar requirements of the several parts, and the combined power to be exerted by the whole. The machinist aims to produce the greatest possible power in the smallest space, and with the least friction and fuel, in all of which he is consistent.

The art of breeding, being of equal, if not of greater importance, should be as carefully studied, and practiced upon by the farmer. There are several prominent ends which should be sought in the rearing of horses; his reputation will be on a par with that of the well informed machinist. An outline, pleasing to the eye, a fine quality of muscle, bone, and tendon, a large developement of muscles, these combinations, giving the greatest power in the smallest space. Speed and elasticity of movement, energy, intelligence and docility, large lungs and belly, with vigorous digestion, thus furnishing the means of engendering the greatest amount of physical force, from a given quantity of feed, and a long life, with continued health and energy.

These combinations are found but rarely, and we assert, without fear of contradiction, that the course heretofore generally pursued in breeding, has well nigh obliterated many of these leading characteristics of the *genuine horses*.

We occasionally find an animal, in nearly every neighborhood, possessing these qualities in the largest degree, and although of advanced age, they are always ready for their rations,

and are always relied upon with confidence, for the plow or the road. Of these noble specimens, of an almost by-gone race, all are ready to bear testimony that "Old Charley's" end of the double tree, has never been known to slacken, nor he to limp, complain of the colic, or refuse a feed; while many a scrub has sickened by his side, or been turned out to grass with spring knees, spavin, ringbone, sweney, windgalls, and cholic, "Old Charley," has kept the even tenor of his way, has seen generations of badly bred nags, come and go, from want of capacity to digest a hearty feed, or to endure the labor of the field and road.

Farmers should select these rare specimens, and study their formation and peculiarities with care, and practice upon the lessons thus obtained.

The very worst recommendation a breeding-horse can possibly have, is that he possesses great *height*. If the horse had been made like the "Crane," for wading in search of food, or could be made useful to man for hunting ducks, or as a fruit ladder, then it might be well to breed a few for these objects. But, inasmuch as, for all the uses to which we put the animal, long legs are a serious disadvantage, rendering him liable to cripple up; at an early age, (who ever saw a "leggy" horse, fit for the road at 15 or 20,) and being invariably coupled with other serious imperfections, it is of the utmost importance, that we steer clear of all animals for breeding purposes, both male and female, that show too much "daylight." Or, if under the apparent necessity of breeding from a mare with this form, a sire should be selected of the opposite extreme, and thus will the defect "breed off" in the progeny.

The proper horse for the farmer, (and a horse suitable for the farmer's use, is *just the horse for all purposes*,) is one of enduring constitution, round in the body, thick set, quick but not fiery, good sized joints, but not large boned, broad in the hips, deep in the quarter, strong in the loins, capacious in the chest, low upon the legs, and having a good hoof. Such a horse will be hardy, strong, and a good traveler, and always *up to the collar and the feed box*. Let us ask the farmers, what proportion of the horses that are kept through the country for breeders, are of this description.

The horse that we have described as a "model," will always be found, if his genealogy be

traced back, to have sprung from *high bred stock*. He may not be great of size, but a trial of 15 or 20 years, has proved to his owner, that he is possessed of *quality*, unknown to the scrub. His muscles and joints, are firm and powerful, and he moves with ease, a load that staggers a scrub with flabby muscle, and loosely set joints, though he be of greater size—*Ohio Farmer*.

Points of a Good Horse.

Zadock Pratt, in a late lecture on the horse, gives his opinion of what constitutes good points :

He should be about fifteen and a half hands high; the head light and clean made; wide between the nostrils, and the nostrils themselves large, transparent and open; broad in the forehead; eyes prominent, clear and sparkling; ears small, neatly set on; neck rather short and well set up; large arm or shoulder, well thrown back and high; withers arched and high; legs fine, cat, thin and small-boned; body round and rather light, though sufficiently large to afford substance when it is needed; full chest, affording play for the lungs; back short, with the hind quarters set on rather obliquely. Any one possessing a horse of this make and appearance, and weighing eleven or twelve hundred pounds, may rest assured he has a horse all work, and a bargain well worth getting hold of.

Mr. Pratt is now seventy years of age, and has always been an admirer of fine horses, and is a competent judge. There are in Mr. P.'s lecture many valuable hints. We give two or three:

Care of Horses—No horse can endure labor all the time. A few months in pasture, after being high-fed and worked for several years, will renew his energies, as stated periods of rest and recreation will preserve the vital energies of man unimpaired through a long life; and by a wise law of providence, which is as beneficial to the beast as to the man, a horse will do more labor in the six days than if he were worked the whole seven.

In reference to the peculiar excellence of the horses of New York, I might say, that I have driven a pair two hundred and forty miles in three days, or eighty miles per day, without injury. Amongst the many hundreds, and per-

haps thousands, of drivers and teamsters in my employ, I had a slow moulded man by the name of Dana Brown, who drove for me some ten years, and always drew the largest loads in the same time, and with less fatigue to his horses, than any other driver I ever knew.—His horses would look better on the same feed than those of any other; and they always appeared in good condition, while those in charge of others gave unmistakable evidence of improper usage. Forty, fifty, and even sixty hundred weight, has he drawn over the Catskill mountains with one pair of horses, and I am only doing him an act of justice to say, that he never wore out a lash, and hardly a snapper in the whole time. Whilst other teamsters had sick horses, his were always in good condition. The whole number of teams I had in one year, averaged in every three working days 2600 pounds to Prattsville, and 3000 pounds to Catskill, a distance of 36 miles, making about two and a half millions of pounds in all. I mention these facts as illustrating the great benefit of a good management of horses and of roads.

In feeding a horse, it should be remembered that corn has a tendency to make him slow, as may be witnessed in the slow moving corn-fed horse of Ohio. Oats are more suitable to develop all his qualities, and from ten to sixteen quarts per day should be given.

Age of Horses.—With regard to the natural longevity of a horse, nothing can be said with certainty. They have been known to live thirty or forty, and in some instances even sixty years, but ill usage frequently destroys them before they are nine or ten. I think that under ordinary circumstances fourteen years would be a fair average.

Breaking.—Too much importance cannot be placed upon the judicious breaking and management of this noble animal. It should be like that of a child; by no other means can a horse be reduced to a cheerful and ready obedience. A sullen and dogged submission will result, it is true, from cruel and brutal treatment, but a prompt and eager response to the wish of a rider can be obtained by patient kindness. I think there are few horses baulky by nature, and that then most are made so by drivers, who are possessed of less brains than the horse himself.

Mulching with Shavings.

Various materials are used by the cultivators of fruit trees for the purpose of *mulching*, but none that I have ever tried, equal *pine shavings*. In the year 1852, I set out about fifty fine young apple trees. On one-half of these I used the fine shavings from a neighboring joiner's shop, and on the remainder, an article of refuse hay, or coarse grass cut in an adjacent meadow. The quantity of the former used, was as nearly as we could calculate, about two and a half bushels to each tree; of the latter, probably a little more. The trees on which the former was used, took an early and vigorous start, and although the season was remarkably dry throughout the months of May, June, July, and a part of August, there was no apparent failure in the supply of moisture; the development of foliage, and the formation of new wood being rapid and well sustained.

The trees on which the hay was applied, were less vigorous, and the growth was nearly arrested before midsummer. On many of the trees, the leaves turned yellow and there was an appearance of general debility and want of vigor in them all. Towards the end of July, I found it necessary to have recourse to irrigation, and by this measure succeeded in preserving several from the destruction which threatened them. The next season, there was the same difference in the appearance of the trees those which had been mulched with shavings, maintaining their superiority of growth and vigor, thereby proving that the effects of the shavings were much more favorable, from some cause or other, than those of the hay. In every instance since in which I have used shavings on fruit and ornamental trees, I have experienced precisely similar results. In two cases, where half a dozen fine young horse chestnuts were set on the same day, and in precisely the same manner, the superiority of this species of mulching, was clearly shown.—*Cor. German-town Telegraph.*

TO KEEP FLIES FROM TROUBLING HORSES.—It is said that walnut tea, a handful of the leaves infused in a quart of cold water over night, and then boiled a quarter of an hour, applied with a sponge when cool, will keep flies from troubling a horse.

Milking Cows.

To insure the greatest yield of milk from a cow, she should not only be well fed and well tended, but also well milked. Now, it is not every man or maid, who can squeeze fluid from a cow's udder, that is a good milker.

It is important in the first place, that the cow's bag should be clean. For this purpose, when the animals are stabled—as they are or should be, during the winter, on all farms, and throughout the year by many—let the whole udder be washed with clean cold water and immediately thoroughly dried with a towel. The advantages of this practice to the health of the animal and the healthfulness of the milk are great and manifest; and in this way, too, we escape that black sediment of which milk buyers so constantly complain, and which is nothing else than small particles of manure brushed from the bag and belly of the cow into the milk-pail. The hands of the milkman by this process become washed clean, of necessity—an operation too generally omitted even by those who consider themselves neat and careful. The same process obviates, too, the supposed necessity of moistening the teats by milking a fine stream into the hand and washing the teats therewith—a filthy practice followed by almost all men and too many women.

The udder being now cooled and cleaned, we are ready to begin milking. If the cow be well trained, she will now extend backward her hind leg for your convenience, without a word from you, or by a simple jogging of the leg accompanied with the command "*hoist*."—They understand what is required of them, and need only, at times, a gentle reminder. But it is a singular fact that men who are kind in every other relation of life—as husband, father, neighbor and master—are rough in their treatment of "gentle Bossy." If they say "*hoist*," it is in stentorian tones; and too generally the first intimation of their wishes is conveyed in a "striking" manner by the edge of a heavy milking stool. Now a considerable experience among "the milky mothers of the herd" has convinced us that harshness of tone or petty cruelty is not only unproductive of good results, but is extremely disadvantageous. Many cows, that hold up their milk to a cross milker, will give down freely to one more gentle.—And the sack of grain or other weight across

the loins, which is still used to compel the animal to give down, would have been uncalled for if a kind hand had always drawn her milk; or could soon be dispensed with, if gentleness takes hold of the teats.

Now the cow may kick. Well we have in previous numbers of the *Journal of Agriculture* shown that to return kick for kick is a poor method of converting Moody from the error of her ways, but that she may be completely conquered and cured by kindness.

When fairly seated, it is of the first consequence that the milking should be done without violence and as rapidly as possible. Many persons who pride themselves on their fast milking, jerk the teats violently, and others will cause them to become sore by the pressure of their finger nails. The best milkers scarcely move their elbows, but with the upper portion of the hand grasping and compressing the teats, force the jet of milk by the pressure of the lower finger.

Whether a cow should be milked before, after, or during feeding is a question of minor importance, and must be decided by circumstances. R. L. Allen, in his excellent work on "*Domestic Animals*" recommends, (if we rightly remember) that they be milked while feeding, for they readily let down their milk; but many cows, at other times quiet, will be a little uneasy while eating, and anxious to get not only all that belongs to them, but a share of their neighbor's meal also. For this reason we always milk before feeding, that the feed might appear like a reward of merit. Where one has but one or two cows it is of course a matter of little moment.

In fine, we recommend to those who want much milk and good milk, *KINDNESS* and *CLEANLINESS*.—*Practical Farmer*.

WOODEN RAILROAD CAR WHEELS.—On the Camden and Amboy road many of the wheels of the passenger cars are of wood. The wood used is red cedar, carefully kiln-dried, some of it having been in the oven for three months. This wood is got out in segments or V shaped pieces, so as when put together to make a solid wheel of about six inches thickness. The hub used is of cast iron, about eight inches long, and with a wide circular flange or collar at each end, through which the wood is bolted. In the hub are sockets for the heads of radial

bolts, these being made to pass through each alternate segment from the hub to the outer circumference. A thin rim of hoop-iron is placed around the wheel, and the tire then shrunk on. Some of these wheels have been in use six years.—*Colburn's Railroad Advocate.*

Oaks, Orange, N. C., June 20, 1855.

Mr. Eli Murray, sr., Mt. Pleasant, Alamance, N. C.

DEAR SIR:—Yours of the 16th is received, and as you are only one of many who have applied for my experience and solicited my opinion on the application of concentrated manures to wheat, perhaps it may be wise to adopt your suggestion and make one letter answer all.—But first I must say you greatly overrate my knowledge of agriculture. Busied as I have been with another pursuit, it has been in my power to give only the odds and ends of time to farming, and the utmost I have learned of this most noble and useful of secular occupations is, the mortifying fact that I know nothing, and have yet the alphabet of agriculture to learn. True I have made some hap-hazard experiments, some rich, others very poor in results. But to the experiment with Peruvian Guano and Mapes's Improved Super Phosphate of Lime.

My memorandum under date Oct. 2, 1852, runs as follows: "Sowed on a measured acre of ground 150 pounds Mapes's Improved Super Phosphate of Lime, mixed with six bushels of scrapings from a coal pit, and at an interval of three feet 150 pounds Peruvian guano mixed with 3 1-2 pecks Plaster of Paris, and ploughed both in with one horse plough. The soil a deep red clay, very, and as nearly as possible, *equally* poor. Had brought very poor oats in 1851, and been pastured till August 1852, when it was ploughed deeply with a two-horse plough; and again this week. Oct. 16th.—Sowed one bushel early purple straw wheat on each acre, covering with expanding cultivator. Whitewashed the seed, with a saturated solution of salt-water and lime, consistency of thin cream, and dried with ashes."

At that time the Super Phosphate of Lime was \$50 per ton, Guano \$40. The result was such that I preferred the former. Now the former can be had at the factory of Fred. McCready, New York, who makes it by Professor

Mapes's receipt, at \$45, in quantities not less than ten tons. Cartage about 50 cents per ton. Freight to Norfolk about \$1:50 per ton; in large quantities and in sail vessels considerably lower. Insurance in August (when it should be ordered) merely nominal. I have inquired of Mr. McCready on what terms he will deliver it at Norfolk in large quantities. When advised you shall be informed. The price is \$50 per ton at the factory for any quantity under 10 tons.

The Denitrogenized Super Phosphate manufactured at the establishment, and composed of half Improved Super Phosphate and half dried and ground bullocks' blood, is the same price, and pronounced by Prof. Mapes 'much superior for general purposes.' I have not tried it yet, but had two tons shipped on the 9th inst.

If the citizens of Orange and Alamance incline to try Professor Mapes's manure, it would be wise to form a company, and order the whole at one time. I have no objection to being the organ.

I am experimenting with sundry other concentrated manures on corn this season, on a small scale. The result if of any value, will be reported in due time.

I applied last Fall one bag (160 pounds) to the acre, leaving two lands untreated for experiment; one on deep red clay of loose porous character, the other of close gravelly texture—yellowish clay. Though the season throughout was extremely unfavorable to the development of the manure, yet judging by comparison, the crop was tripled. My harvest began on the 11th inst. Wheat, except the two lands untreated and some rich spots also unmanured, abundantly ripe. I forgot to state that the Improved Super Phosphate hastens maturity ten days, Guano seven.

You ask my judgment on the comparative value of the two manures; and I presume you anticipate the answer. Let it be understood, however, that my experiment was on clay land. Perhaps Guano is better on sandy land such as yours.

One word more. The Improved Super Phosphate of Lime does no harm to any kind of seed by contact, and may be very conveniently sowed by mixing with it an equal quantity of moist earth of any kind well pulverized.—Guano, I think, should always be mixed with

a large percentage of Plaster of Paris, or charcoal dust, or both.

Very respectfully,

Your obed't serv't,

WM. J. BINGHAM.

P. S.—The Improved Super Phosphate of Lime exhibited equal superiority over Guano in the succeeding crop of corn, and is, I am convinced, more durable in its effects.—*Hillsboro' Recorder*.

Grouting, Mulching, & Watering!

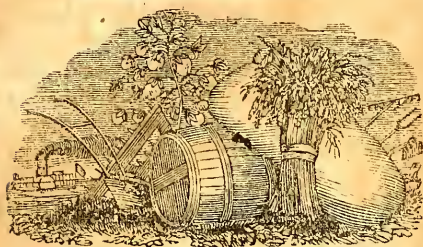
After manuring, subsoiling, or spading, pulverizing, *preparing* and cultivating the garden ground properly, the three other operations essential to complete success, are described by the words at the head of this article.

"*Grouting*" is a simple operation by which the roots of plants taken up in dry weather are coated over with a moist and (sometimes) fertilizing substance, which prevents their dying from excessive evaporation, and gives an impulse to their growth until their existence is rendered certain by a shower of rain. When properly done, it is of great utility, rendering the gardener or planter almost independent of "seasons." We scarcely ever wait for a rain, in order to transplant cabbages, tomatoes, sweet potato draws, or any similar plant, our practice being simply this;—We take a bucket of rain water or soap suds from the washing tub, and stir into it enough leaf or woods mould and crappings from the cow-pen to make it as thick as batter or thin mortar. Into this batter, we dip the roots of sweet potato draws or any other plant, and when they are well coated with the grouting mixture, we set them where they are intending to stand, in a hole made with a dibble or pointed stick, and having pressed the earth firmly around all parts of the root, the work is done. From four o'clock in the evening until sundown, is the best time for this work, as the cool dews of night greatly assist the plant in getting a "foot-hold" in its new locality. Should the ground be very dry, and the weather excessively warm, we drop a handful of pine-straw or other leaves around and over the newly-moved plant, to "make assurance doubly sure" and by this method, we seldom if ever, lose 5 per cent. of our plants, even in the heat of midsummer. The handful of leaves is lifted from the plant, and spread

around it as a mulch, as soon as the plant is firmly rooted.

"*Mulching*" all our readers ought to be tolerably familiar with, from the urgency and frequency with which we have pressed it upon their attention. It consists in surrounding the trunk or stem, and covering the ground over the roots of fruit trees, vines, herbaceous plants, vegetables, &c., &c., with a thick layer of partly decomposed leaves, pine straw, saw dust, half rotted chips, stable litter, moss, or any other substance that will keep the ground moist, and by gradually decaying, give off nourishment to the growing plant. We have found it of the utmost value in all our horticultural operations; it is a protection against both frost and drouth, and has in numerous instances, preserved the lives of tender or half-hardy plants that had reached us in a perishing condition, after imperfect packing and a long journey. In addition to its value as a shade and fertilizer it keeps down the growth of weeds and enables the gardener or fruit grower to apply water copiously, even under a burning sun, without any danger of wilting the plant or causing the surface of the ground to bake or harden.

Watering, regularly and abundantly, is almost indispensable, in the long-continued drouths of our climate. Rain, or pond water is best, where it can be obtained, unless the gardener prefers to give his plants a little extra stimulus with liquid manure. In order to prepare this, infuse two quarts of Peruvian guano or four quarts of henhouse manure in a barrel of water; keep it well covered and stirred up, and apply to the earth around the plant, just before sundown, either from the nose or nozzle of a watering-pot. Pure rain water may be poured over the plant leaves, stem and roots, but the liquid manure must be applied directly to the roots, without touching any other part of the plant. If your soil is not mulched, clayey, and inclined to bake, it is advisable to loosen it up deeply with a prong or forked hoe before applying the water, and to select always the cool of the evening for the job: but, if, on the contrary, it is well mulched and of an open texture, the water or liquid manure may be poured *through the mulching* around the plant, at such times as are most convenient. Soap suds and chamber slops, diluted with equal quantities of rain or pond water, are invaluable fertilizers, and should never be thrown away.—*Southern Cult.*



The Carolina Cultivator.

RALEIGH, AUG., 1855.

TERMS

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Fertilizing Agents.

In our last number, we endeavored to show that the nutritive constituents of the soil must be converted into gases, or dissolved into water, in order to benefit the growing plant. We now take another step in the investigation, to ascertain the mode in which this transformation is effected.

Let us suppose that the soil is already furnished with an abundance of the materials necessary for the production of a good ordinary crop. These materials may be divided for convenience into two classes, viz.: those which contribute to the growth of plants, chiefly by contributing to them, directly, parts of their own constituent elements, and those which promote vegetation indirectly, by preparing other agents present in the soil for the nourishment of the plant. Fertilizing agents may therefore be classed as direct and indirect, and it is our present object to illustrate or explain the difference of their operation.

As we have already said, there are four chemical elements whose various combinations form the principal part of the vegetable sys-

tem. These are oxygen, hydrogen, carbon, and nitrogen. The latter is less concerned in nutrition. All of them are derived from the soil by the process of absorption, or by that mysterious power of penetration with which gaseous substances are endowed. They must be procured from matters in the soil which contain them. These matters are vegetable or animal substances in the various stages of decay. Direct fertilizing agents are therefore such as furnish these elements to the roots of the plant. It would be tedious and unnecessary to enumerate the various articles belonging to this class. Common barn-yard manure is rich in all the elements to which we refer. Dead and decaying vegetable and animal matters must, of course, return to the soil that, which the same substances, when living, had extracted from it. The changes which these matters spontaneously undergo, under the influence of the sun and air, are numerous, complicated, and mysterious. The ultimate results, however, are comparatively simple and intelligible. Both ammonia and carbonic acid gas are produced by the process. The former consists of hydrogen and nitrogen, the latter of oxygen and carbon, and it is obvious that these two compounds contain all the essential constituents of organized matter.—The mineral matters left in the soil after their production, such as lime, potash, soda, silica and the like, may also furnish a sufficiency of such constituents to the growing crop. We conclude, then, that, under favorable circumstances, the application of common barn-yard manure would restore to the soil what it had lost, and afford to the succeeding crop the most important elements of growth.

But in a practical point of view this theoretical proposition does not generally hold good. Barn-yard manure is seldom so carefully mixed and prepared as to contain the lost elements in their original proportions; and even when faithfully applied, the process of transformation into these elements is rendered irregular and uncertain by a thousand circumstances.—As in the animal economy it is not enough to fill the stomach with proper food, but its conversion into chyme and chyle depends upon the condition of the digestive organs, and the character of the secretions and forces to which they are subjected; so it is with the nutritive constituents of the soil, which depend upon atmospheric, chemical, and vital influences, for

their proper preparation, before they can be appropriated by the plant.

This brings us to the utility of those *indirect* fertilizing agents which are now derived from the mineral kingdom. The vegetable matters already in the soil, or added to it by the industry of the farmer, are useful to growing crops in proportion to the rapidity with which they undergo the required transformations. Whatever promotes or facilitates these changes, must contribute to the growth and well-being of the crop. Lime, ashes, marl, greensand, bone-dust, salt and several other mineral substances, while they enter but sparingly into the structure of plants, are known to exercise a powerful influence over vegetation. This influence is chiefly of a chemical character, and to ascertain and establish its operations is one of the most important provinces of Agricultural Chemistry. Many valuable facts have already been acquired from such manifestations, and every year new light is thrown into the mysterious laboratory of nature.

It is known to physiologists that the changes which the food undergoes in the stomach are effected to a great extent by agents furnished by the animal economy, which act upon the food by their presence alone. They do not combine with the constituents of the food, except mechanically, but powerfully influence those constituents to change their state, and enter into new combinations among themselves. The mineral manures referred to, would seem to act in some cases in the same manner, upon the vegetable matters met with in the soil.—They operate as mediators and negotiators, as disinterested but influential parties, among the elements with which they come in contact, and contribute, with comparatively little loss to themselves, to the growth and maturity of plants.

But the influence of the agents here referred to, is by no means limited to the mode of operation we have indicated. Many of them, under favorable circumstances, take an active part in the numerous chemical changes that occur in the soil. They abstract certain constituents, from the decaying vegetable matters there present, or add others to them, so that new compounds are continually forming, and conditions arising, by which the living plant is more readily nourished and strengthened. They also

act upon the atmosphere, and fix in the soil some of those important elements which are so essential to vegetation. Lime, in its various forms, is supposed to contribute largely in this manner to the increase of vegetation.—When the surface of the land has been coated with this substance, its affinity for carbonic acid gas, causes it to abstract it from the air, and form with it the combination of carbonate of lime or limestone. It is believed, that this carbonic acid afterward, enters into the structure of plants as it is wanted. Potash is also known to combine readily with nitric acid carried into the soil by solution, and thus to hold in readiness a supply of that useful element, nitrogen.

These illustrations must suffice for the present. They clearly prove that the farmer is necessarily a practical chemist, whether he is acquainted with chemical principles or not.—They demonstrate the dependence of successful cropping upon our knowledge of certain scientific laws, derived either from study or observation, and make it plainly evident that Agricultural Chemistry is a science of the first importance to the farmer. We sincerely hope that our serial remarks upon the subject, may have the effect of inspiring our readers with a new taste for its pursuit.

HIDE BOUND.—This is a frequent chronic disease of cattle, which is very difficult to relieve. It is attributed to a deficient secretion of that fluid which exists abundantly in health in the cellular tissue beneath the skin, and causes it to move readily over the muscles and bones. The morbid cause is probably located in the digestive organs. Zonatt and Martin, in their work on cattle, recommend a dose of eight ounces of *sulphur*, and one of pulverized *ginger*, to be followed with a course of diaphoretic medicines which will increase the secretions of the skin, such as sulphur, nitre, antimonial powder, &c. We know of no medicine better adapted to the purpose than *sulphur* itself, and would therefore suggest its continuance for several days at a time, and in the intervals occasional doses of *saltpetre*.

It has been ascertained by experiment, that a cow will drink about eighty-seven pounds of water in twenty-four hours.

Clay as Manure.

There is no farm so small or so sandy, that a bed of clay cannot be found on it. In many parts of the Atlantic States, such beds would prove, in the hands of scientific farmers, almost as valuable as marl. Some soils require clay especially to modify their mechanical texture, and it will often richly repay the labor expended in carting it out and mixing it with the land. The following is part of a valuable article on the subject, in the *American Agriculturist*, for June, 21st.—

The adaptability of a soil to the growth of these fine rootlets, and in a great measure, its fertility, depends upon the amount of impalpable material—that is, earthy substances so fine that when rubbed between the fingers there is no perception of roughness. We know that common clay is such a substance as this.—It feels smooth, or salvy, so to speak, when rubbed in the hand.

It is on this account that we often find clay one of the very best fertilizers that can be added to a sandy soil. The particles of sand making up such a soil are too coarse to furnish a medium of growth to the sap-absorbing rootlets. The addition of the fine clay particles supplies the want.

To test any soil in reference to this point, take a portion and put it into a vessel; add four or five times its bulk of water, stir well, let it stand two or three minutes; then pour off the water into a clean tin or glass vessel, and let it stand perfectly still for a few hours, or until it becomes quite clear. If there does not settle to the bottom of this water a considerable portion of fine, impalpable earthy material, equal in weight to from one-twentieth to one-tenth of the original soil, we may safely conclude that it does not contain enough of fine soil to support the sap-absorbing rootlets of any plant.

Manures added to such a soil may stimulate the growth of a greater length of root, and lead them to a greater distance in search of moisture; but the most feasible means of improvement is, to bring about a change in the mechanical structure. Frequent stirring and exposure to the air and frost, which disintegrate the coarser particles and furnish more of the fine material, are beneficial; but we believe the most rapid and, in the end, the most economical improvement of such soils, is to add to them a liberal supply of fine clay.

We venture the opinion, that on any sandy soil, or even on sandy loam, a few loads of fine clay thoroughly mingled with it will, in the course of a few years, produce more marked effects than half as many loads of the best organic manure. When clay is so added, it remains a permanent improvement, unless the soil is subjected to running water that will wash out the clay again.

The amount of clay that may be profitably added to any soil, will depend upon its present necessity or physical condition. On many soils ten loads of clay per acre will show a marked effect, while on most sandy fields one or two hundred loads per acre will be found a most profitable outlay. We earnestly advise those who have light, coarse, or sandy fields, with clay accessible, to ponder this subject well, and to try a portion, at least, with a good admixture of clay as a manure.

LIME VS. SORREL.—To Mr. Edmund Ruffin, of Virginia, much credit is due for his incessant labors in the cause of agricultural improvement, and especially for his influence in bringing into general notice the value of marl as a renovating agent upon worn out lands in our eastern counties. Practically, Mr. R. has established the power of marl to destroy the growth of *sorrel*, and other useless plants which are characterized by the presence of a vegetable acid, but the theory which he has so long sustained, that lime produces this effect by neutralizing oxalic acid, chemically, in the soil, is generally and justly considered erroneous. An interesting discussion on this subject has been going on in the *Southern Planter*, between him and Mr. P. B. Pendleton, which will probably result in some modification of Mr. R's views. One thing is certain, that chemistry clearly shows that the acid referred to is not derived from the soil, but produced by the laws of its own being in the plant itself, and there are abundant facts to prove that acid fruits grow as well upon calcareous soils as anywhere else.

SADDLE AND COLLAR SORES.—We find in our exchanges numerous receipts for the treatment of such injuries, but none, in our opinion, better than one old ointment much used by physicians for subduing inflammation in the human subject. We refer to Goulard's Cerate—*Ceratum Plumbi subacetatis*. It is still more important, however, to remove all pressure from the injured part, taking care not to make too much pressure upon any other particular point. The free application of cold water, with the ointment mentioned, will generally effect a cure in a recent case.

Fences operate in two ways; if good they are a defence; if poor, an offence.

THE HOG CROP.—The Cincinnati *Price Current*, says that the product of this season is 20 per cent less than the last, and 2 1-2 per cent more than that of the preceding year, in the Western States. The total number of pounds for this year, is set down at 426,989,825.—This deficiency is ascribed in part to the smaller size of the hogs in several of the best pork growing States.

For the Carolina Cultivator.

MR. EDITOR—DEAR SIR:—

In fulfilment of a promise somewhat incautiously made, I take an early opportunity to submit to your readers a few thoughts upon the topic then suggested, though perhaps it may excite a smile upon the countenances of some, at the apparent incongruity, that one who has spent almost all his days in the study or the school room, who has been more conversant with books than with crops, and is more skilled in the solution of problems, than in the management of ploughs, should boldly obtrude his opinion upon practical farmers,—men, possibly who sowed and reaped before he was born,—and undertake to teach them Agriculture! A few years ago this would not have been an *apparent* incongruity. Then would there have been a *real* impropriety, in any one not thoroughly initiated by practical experience, in all the mysteries of the field and of the barnyard, attempting to occupy the post of instructor to the farmer, but it is not so now.—Then the pursuit of science and of Agriculture as regards any mutual dependence, were deemed almost wholly incompatible with each other and the farmer would as soon expect a spontaneous crop, from an uncultivated field, as look unto a book, or even an agricultural paper, for instruction in anything pertaining to his craft. But farmers have been taught,—and it is comparatively a recent lesson, by some not yet sufficiently learned—that book learning is not altogether irrelevant to the occupation of husbandry. They have discovered that men of science, who have never turned over a furrow, or thrown up a spade full of earth, in the whole course of their lives, may teach them truths with regard even to the manipulations of their own craft, which they could never have learned, simply from experience, and they therefore gladly avail themselves of their aid, to tell them the constituents, and the nature of the

soils which they cultivate, and the manures best calculated to enrich them respectively. It is only as a Chemist or Botanist, that I attempt to enlighten your readers, and I will endeavor, with becoming modesty, to keep within my own proper sphere, and leave to older and wiser heads, to dilate upon such topics as relate to a farmers' practice.

I have said, that farmers have tardily learned the fact, that science can teach them many things, a knowledge of which experience cannot impart,—yet they have been much more slow to profit by a knowledge of that fact.

Few—very few—seek to avail themselves of this source of practical improvement, although its attainment is within the power of every man. It requires no great expenditure of time, and no very laborious mental effort, to acquire a competent knowledge of Botany, which teaches not merely the names and classification of plants, but their structure, their properties, their manner of growth, and the means necessary for their successful cultivation, and a man of ordinary intelligence and attainments, even amidst the cares of active life, may soon so far master the science of Chemistry as to be able to analyse his own soils—to tell in what particular ingredient they may be deficient; and to apply the proper remedy.

These studies have hitherto been considered as “higher branches,” above the reach of ordinary intellects, useful only to those who are seeking a thorough scientific education, and adapted only to the amusement of Amateur Agriculturist. This is a serious error, for if there is any one man who can be benefitted more than another by the application of the truths of these two sciences to his every day business, it is the farmer, and a knowledge of them, therefore, should be brought within his reach. It is an error, however, that time may, and doubtless will correct. We may hope, ere long to see these, and kindred branches, of education, familiar to every school boy, and every district school afford facilities for their acquisition.

Of the importance of Agriculture, it is unnecessary now to speak—all are ready to acknowledge it, while probably very few have any conception of the vast disproportion that exists between the value of the various Agricultural products of the United States, and the value of

all manufactured articles of every description. By a careful calculation based upon the official returns made at the taking of the last census, it appears that the total value of all sorts of manufactured articles amounts to \$1,013,336.463, while the value of the farmer's industry and skill swells up to the enormous amount of \$1,600,000,000.

Occupying as it does, so prominent a place in the political economy of our country, and lying at the foundation of our national prosperity, it is manifest that agriculture should receive all the aid that art and science can afford, and that agriculturists should be fitted by education properly to wield the power and exercise the influence that, of right belongs to them. I would by no means undervalue the importance of manufacturers, or throw one obstacle in the way of the extension or perfection of manufactures, yet at the same time this nation is now, and ever must be pre-eminently an agricultural nation, and its prosperity will always be commensurate with the extension and perfection of Agriculture.

I propose, in future communications, to explain and illustrate the rationale of the rotation of crops, showing the Botanical reasons, why such rotation becomes absolutely necessary, and throwing out some hints, founded upon the physiology of plants, with regard to the order in which successive crops should be sown—a subject peculiarly interesting to an agriculturist, whether he operates upon a farm of a thousand acres, or is the petty cultivator of a seven by nine garden spot.

R. L. C.

Bloomfield, N. J., July 10, 1855.

PIGEONS IN PERSIA.—In Persia, where the pigeon is not eaten, they are kept merely for the sake of their dung, which is used exclusively for raising water-melons, some noblemen keeping as many as ten thousand for this purpose; the dung of common fowls being of the same nature, and quite as valuable for this purpose as for any other, but it is too concentrated in its nature to be used without an admixture of a plentiful supply of good mould to form a compost, when its value on comparison with guano may be estimated at about ten times greater.

Miscellaneous.

Sanitary Substances.

As the warm weather is now at hand, it will no doubt be very useful information to many persons to be told what are the best substances for removing offensive odors from sinks, &c.

Copperas, or sulphate of iron, is a very excellent substance for slashing drains and sinks. By dissolving half a pound of it in a pail of hot water, and throwing it into a sink once a week, it will keep down all offensive odor; and from the situations of many houses in all our cities, it would greatly tend to health and pleasure for the inhabitants of each to do this. The chloride of lime, or the chloride of zinc, will answer just as well, but these are expensive substances in comparison with copperas, (sulphate of iron.) Lime is also very useful, and is no doubt a cheap de-odorizer, but it is not a very good one; copperas therefore is preferable to all these substances. But there is another substance which is far superior to either copperas, the chloride of lime, or zinc, as a de-odorizer, both as it respects its qualities and economy: we mean charcoal powder, made of ground wood charcoal. Charcoal powder possesses the quality of absorbing ammoniacal, sulphuretted hydrogen, and carbonic acid gases in superior degree to any other substance.—Placed in the vicinity, or spread among decaying animal or vegetable matters, it absorbs all the offensive and hurtful gases, and keeps the air sweet and wholesome.

We really hope that charcoal powder will soon come into extensive use as a de-odorizer and disinfectant. It appears to us that it can be ground in mills in the timber regions where wood is cheap, transported to our cities, and sold at a very moderate price. We are convinced that a plentiful use of fresh ground wood charcoal for sinks, damp floors, and the drains of cellars, would greatly tend to prevent disease in many places, by the absorption of miasma.—*Scientific American.*

SETTING HENS.—In setting hens, thirteen eggs are enough to give them; a large hen might cover more, but a few stronger, well-hatched chicks are better than a large brood of weak.

lings that have been delayed in the shell perhaps twelve hours over the time, from insufficient warmth. At the end of a week, it is usual, with setting turkeys, to add two or three fowls' eggs, "to teach the young turkeys to pick." The plan is not a bad one; the activity of the chickens stirs up some emulation in their larger brethren. The eggs take but little room in the nest, and will produce two or three very fine fowls.—*Albany Cultivator*.

Influence of Climate on Stock.

The climate which prevails in this country is quite different from that of Europe in the same latitude, not particularly in regard to mean temperature as to extremes of heat and cold, and sudden changes from one to the other. We have warm, sunny days in mid-winter, and cold chilling rains in Spring and Autumn, and a change from mild to severe, often takes place in a single night.

A recent writer* upon this subject says, that our climate has a strong stimulating effect, which, upon an animal not accustomed to it "must greatly accelerate the action of the heart, and thus affect the whole system." The change to man, coming here from Great Britain, is said to be equal to fifteen pulsations a minute over the former rate, and it is inferred that its effect must be equally as great upon the larger domestic animals, and even greater, as their arteries are larger. From this cause great losses have occurred in driving cattle from the Western States to the Southern markets, and particular care to avoid heat, excitement, and high feeding have been found necessary.

Animals, it is asserted by the same authority, should be gradually accustomed to a new climate, in order to prevent deterioration. If they are taken when young and properly sheltered during the winter, they may become accustomed to the difference, or at least bear it without injury. We think the most hardy animals can scarcely endure the sudden changes which mark our winter months, without some effect being produced—either towards a better adaptation for resisting such extremes, or, far more likely, a loss of stamina and vigor. It was observed by the first settlers of New England,

that "the cows raised from those first imported were very soon found to be smaller than their dams." Arabian horses imported into England, have frequently become unfruitful, or give birth to a progeny inferior to themselves. It is only after a series of years that they become perfectly acclimated.

Cattle bred in a warm climate have a thin, supple and oily skin, those of a colder region have their skin thicker, harder, and drier; the hair of the one is scanty and fine, of the other, longer, coarser, and more bushy; the limbs of the one are long, and the tendinous parts distinct, the other is less marked in this; the horns in warm climates are hard, brittle and dry, instead of soft and spongy, and the hoofs have the same distinction; the muscles of the one are dry and lean, while in the other they are strong, close, and well supplied with fat. In the one case the temperament partakes of the sanguineous, in the other it may be characterized as lymphatic—suited to its surroundings, but wanting in the physical activity and energy belonging to the other.

These influences of climate should be taken into consideration by all who have to do with animals bred in and accustomed to a different one from ours. We must try to make the change a gradual one—nor expect the finely organized thorough-breds from the ever luxuriant pastures of a moist climate like England, to do well upon our drouth-parched fields with the same care which the Natives receive. The same is true of sheep, swine and poultry. The climate must affect them—it has transformed sturdy, portly, John Bull into a thin, active, wiry Brother Jonathan. We are getting animals suited to our uses; the infusion of the best blood of other countries assists in their production. Breeders should understand, however, all the influences which can help, or hinder this result, and this is why we gather for them these broken hints on the subject.

Plowing and sowing too much is the great fault of American farmers. We need more and better grazing lands. When a field ceases to produce a fair amount of grass, it may become necessary to plow, *till thoroughly*, and seed again; and it must be confessed that a large portion of our grazing lands are less productive than they might be made.

* Professor C. L. Flint, Agriculture of Mass., for 1854.

Work in the Garden.

AUGUST.

SETTING OUT CABBAGE PLANTS.

Avail yourself of the first rain this month, and set out your Savoy, and other kinds of cabbage plants, to form the cabbages for late Fall and winter use.

PREPARATION OF THE GROUND.

To raise large cabbages, and it should be the object of all gardeners to do so, it is necessary that the ground be manured with a liberal hand, as the whole cabbage family are heavy eaters, and will not grow in luxuriance unless they have plenty of food; though we have manured our cabbage beds, in a measure which some of our neighbors thought excessive, we never found by the appearance of the cabbages that we had over-fed them. It was our rule to give to our beds three or four inches in depth of the best manure which our stable and cow yard afforded, and to have that spaded in to the full depth of the spade, to have the ground raked well and thoroughly as the spading progressed; we then made a mixture of at the rate of 20 bushels of ashes, 2 bushels of salt and 1 bush. of plaster, per acre; this we applied as a top dressing and raked the mixture in, when the bed was fit for planting out, the first rain.

DISTANCE APART.

Let the rows be two and a half feet apart, and the plants two and a half feet apart in the rows.

WITHDRAWAL OF THE PLANTS FOR SETTING OUT.

The plants should be carefully withdrawn from the seed bed, so as not to lacerate the roots. Previously withdrawing them, prepare in a noggin, piggin or other tight vessel, a mixture of 1 gallon of loam, 1 pint of soot and 1-8th lb of flour of sulphur, mix the whole well together, then pour over it as much boiling water as will reduce it to the consistence of cream. When cold it will be fit for use. As you draw the plants out of the seed bed, place them in this mixture up to the leaves, so as to cover the roots and stems in it. This mixture not only serves as a repellent to cut and other worms, which pray upon newly set out cabbage plants, but act as a manure also to the plants, encouraging alike their taking root, and speedy, vigorous growth.

AFTER TREATMENT.

Water the plants every afternoon, after they are set out, until a rain occurs. Be particular to keep the ground clear of weeds, the earth repeatedly stirred, and the plants hilled up so as to keep the stalk pretty well covered; the hill should be flat at top, or what would be better, a little basin shaped, so as to prevent the escape of the rain. About three hillings and workings will be sufficient. In dry weather, supply the cabbages copiously with water, as they delight in, and grow best and most luxuriantly, in a moist earth.

If you were to give them occasional waterings, with soap-suds, their growth would be greatly promoted thereby.

HEADING CABBAGES.

Hoe your growing cabbages, keep them clean of weeds and grass, and by all means, in periods of drought, have them well watered—applying the water just before or after sun down. To ensure success, cabbages must be kept clean from weeds, the earth open to atmospheric influences, and be repeatedly watered, as they cannot stand dry weather unassisted by water, as well as being eaters they are great water-drinkers.

SOWING SPINACH.

Prepare a plot of ground as for cabbages—and as near the first of the month as possible drill in some spinach seed; spinach drilled in the first week of this month will be fit for use in September. About the middle of the month drill in more seed; this last sown will be in fine condition for use in October. Towards the last of the month, drill in seed of the prickly sort of spinach for use next spring.

RADISHES.

In the first week of this month sow short-top and Salmon radish seed. About the middle of the month sow black and white Spanish radish seeds for winter use.

ASPARAGUS BEDS.

Look to these and keep them perfectly clean of weeds.

TURNIPS.

If you have not already sown turnip seed, sow some of the Early Dutch turnip seed, the first week in this month. This kind is much earlier than any other variety. If you want your turnips very early, sow in the first week—but you may sow as late as the 15th of the month.

CELERY.

Set out your plants for your late crop of celery.

SMALL SALLADING.

Every week in this month, you should sow all sorts of small sallading seed, in order that you may secure a succession of crops for use. Water the seed beds, which should be in a shady location, every afternoon about sun-set until the plants come up, and continue watering the plants until rain occurs, and afterwards in times of drouth.

PEAS.

Any time between the 1st and middle of the month you may drill in a few rows of peas.—These will yield middling crops in September. Soak the seed in warm water before drilling them in, and water the drills until the vines come up.

BEANS.

Plant a few rows of the early variety of Beans. Soak the seed before planting, and water the drills as advised for Peas.

LETTUCE.

Set out your plants that are of sufficient size, and sow seed.

ENDIVE.

Tie up your advanced Endives to blanch, and early this month sow seed of the early green curled sort.

MELONS AND CUCUMBERS.

Keep these clean of weeds, and if the weather be very dry, water them, taking care not to bruise the vines.

HERBS.

Such as may be in flower should be cut, and dried in the shade.

Slips of sage, thyme, rue, lavender, hyssop, winter savory, &c., may be planted early this month. Keep them well watered until a rain occurs.

CARE OF THE CROPS.

Keep your various crops clean of weeds, the earth frequently stirred, and in times of drought have them watered freely.

LIMA AND CAROLINA BEANS.

Hoe and clean between the hills—if the weather be dry, water these.

WEEDS.

Have every thing in the shape of a weed gathered and burnt and the ashes either spread or saved; or, if you think better, form them into composts for manure.—*American Farmer.*

Making and Keeping Butter.

How to make good butter, and to make it remain so? are important inquiries for the dairy farmer, and considerations justly entitled to his careful attention and earnest investigations.

The months of May and June, in our opinion, are the most favorable in the year for making good butter; nature then seems to have awakened from a season of repose—the new grown feed possesses a sweetness and flavor consequent only to the early summer, which imparts a color and richness to the cream that is seldom seen later in the year.

The cows too, having had their time of rest, furnish better milk and greater quantities than they do after a long summer's drill, and the consequence is, much of the butter which we consume in after months is then made. How important, then, that it should not only be well made, but so packed as to retain its perfection to the last. To effect this every particle of butter-milk should be extracted, none but rock salt should ever be used, for a small share of the butter-milk if suffered to remain, will, like the gangrene, spread its destructive influences throughout the entire mass, rendering it rancid and unfit for use. And rock salt is preferable because its preserving qualities are superior to other kinds, and of course will cause the butter to remain sweet a longer time.

Butter designed to be kept should be packed as soon as it is ready, and it should be put into packages made of the right timber and properly prepared. The best timber for this purpose, we think from the experience we have had, is white hemlock, white oak, and white ash; the heads and sides of the cask should be made firm and thoroughly saturated with salt before the butter is packed.

When a tub is filled at different times, pains should be taken to keep the air from the separate layers, and the salt from evaporating.—This may be done by laying on linen cloths, covered with a quantity of coarse salt sufficient for the purpose. It is an easy matter to make good butter when the cows have good feed and the milk is kept in the right temperature, at almost any season of the year: but what we would endeavor to impress upon the mind of the farmer is, to learn how to make butter in

the early part of the season, and pack it in such a manner that it will remain good through the year.

We are confident that it can be done—and we feel sure if the good sense and skill of our farmers can be directed to this object we shall very soon have our market supplied with butter equal to any in the world. All that is necessary is to have the butter well wrought, salted, and packed.—*Hart. Co. Trans.*

Domestic Receipts,

SELECTED FROM VARIOUS SOURCES.

PRESERVING SUMMER FRUITS.

Such fruits as strawberries, raspberries and the like, may be preserved in the following manner, cheaply, and their flavor be retained: Put sugar over the fire, at the rate of half a pound to a pound of berries, add a little water, and when hot take up the fruit in a skimmer and dip it into the sugar, holding there for half a minute perhaps, then take it out and spread it on the tins. Go through the whole lot in this manner. Then boil down the sugar to a thick syrup, and pour it over the fruit. Set the tins either in the sun or in a warm oven, till the berries are dried through in thin gelatinous cakes. When thoroughly dry, put the cakes in a bag and hang it out of the way.—The cakes will keep as long as wanted, and may be fitted for the table in a few minutes, by the addition of a little hot water—more sugar being added if necessary. The beauty of this mode is that the flavor of the fruit is retained, while there is no danger of spoiling by fermentation. Fruits, when preserved in the usual way—pound for pound—are made too sweet, and lose their distinctive flavor so much that it differs little whether it is preserved peach or potato. Besides, without care, preserves are apt to ferment and spoil.—*Prairie Farmer.*

BLACKBERRIES.

Preserve them as strawberries or currants, either liquid or jam or jelly. Blackberry jelly or jam is an excellent medicine in summer complaints or dysentery; to make it, crush a quart of fully ripe blackberries with a quart of best loaf sugar, put it over a gentle fire and cook it until thick, then put to it a gill of the

best fourth-proof brandy, stir it awhile over the fire, then put it in pots.

BLACKBERRY SYRUP.

Make a simple syrup of a pound of sugar to a pint of water, boil it until it is rich and thick, then add to it as many pints of the expressed juice of ripe blackberries as there are pounds of sugar: put half a nutmeg grated to each quart of the syrup; let it boil fifteen or twenty minutes, then add to it half a gill of fourth-proof brandy for each quart of syrup; set it by to become cold, then bottle it for use. A tablespoonful for a child or a wineglass for an adult is a dose.

BARBERRIES.

Preserve them the same as currants; or they may be preserved in molasses. Pick them from the stems and put them into a jug or jar with molasses to cover them. The acid soon destroys all taste of molasses. The small winter or frost-grape may be done in the same manner.

TO COOK NEW POTATOES.

No matter how small new potatoes are, they may be cooked so as to be a most delicious and healthy summer vegetable. After boiling, you should let them get thoroughly cold. They should then be sliced into a wooden bowl, and chopped with a chopping knife, but not very fine. Put them into a frying pan and let them warm over a slow fire, adding a lump of butter, and milk sufficient to moisten well. Season while warming, with salt to suit the taste.

ANOTHER METHOD.—Scrape the potatoes, and boil in just water enough to cover them; when done, pour off the water, and add butter and good milk or cream, with salt and a little parsley. Let it come to a boil, and take it up.—*Ohio Farmer.*

GAPES IN CHICKENS.

A correspondent of the Scientific American says, "Tell those of your readers who are interested in raising chickens, that a small pinch of gunpowder given to a chicken with the gapes, will effect a cure in from one to three hours' time, and leave poor chick healthy and hearty. I speak from what I know, having tried the remedy with perfect satisfaction."

TO DESTROY THE ONION MAGGOT.

The New England Farmer says, tobacco steeped in water, and poured along the rows, directly upon the plant, will effectually prevent the ravages of the onion.

Simple Remedies.

Cotton wool, wet with sweet oil and paregoric, will relieve the ear ache very soon.

Black or green tea steeped in boiling milk and sweetened with loaf sugar, is excellent for the dysentery.

A good quantity of old cheese is the best thing to eat when distressed by eating too much fruit, or oppressed with any kind of food.—Physicians have given it in cases of extreme danger.

Blackberries are extremely useful in cases of dysentery; to eat the berries is very healthy; tea made of the roots and leaves is very beneficial, and a syrup made of the berries is still better.

Whortleberries, commonly called huckleberries, dried, are a useful medicine for children. Made into tea and sweetened, they are very beneficial when the system is in a restricted state, and the digestive powers out of order.—*Ohio Farmer.*

Blackberries.

As this is the season when this wholesome fruit every where abounds, it may be rendering a service to some of our good house-wives to furnish them with one or two recipes for converting it into a pleasant and profitable use.—If it were not that the blackberry is regarded by most farmers as a pest—as in fact it is when suffered to infringe on the arable land—we would recommend the cultivation of it in small plantations, like the raspberry. Some of the varieties are large, sweet, and very fine, while others are small and bitter. A selection might be made while they are in bearing, and at the proper season the bushes transplanted to a suitable place, and put under cultivation. They would thus serve to keep up a supply of good wholesome fruit, and add to the varieties at a time when there is a general scarcity. The wine made by the following recipe is, we are assured by the lady to whom we are indebted for it, very much like port Wine, in taste and appearance.

“TO MAKE BLACKBERRY WINE.—For every gallon of fruit add one quart of boiling water, then strain off the juice, and to every gallon add 3 lbs. of brown sugar. Put it on the fire

and let it boil a few minutes; then pour it into an open jar, to remain till fermentation is over, which will be in about three weeks. Strain again, and bottle, sealing the corks with wax. In six months it will be ready for use.”—*Southern Farmer.*

Feeding, Mowing Lands in Autumn.

I am not disposed to regard the feeding of grass lands in the fall, by the farm stock, as so decidedly injurious as many seem to suppose. Perhaps there are cases where the future crop has, to a certain extent, been diminished by the excessive feeding of the stubble in the fall; but that in nine cases out of ten, perhaps in nineteen out of twenty, the growth of the grass is increased by the consumption of the aftermath of the previous year, I have no manner of doubt. When the land is low, and saturated as low lands almost always are late in the fall, there is no question that the trampling of heavy cattle is a very decided injury, not only to the soil, which it renders rough and uneven, but to the roots of the grass, which are broken and destroyed. I think that so far as the value of fall feed is concerned—unless where a scarcity of winter or cured feed is threatened, our estimate is generally too high. When animals are allowed a free range in mowing meadows or fields, after the hay crop has been removed, and the aftermath allowed to get a good start, they are never much inclined to partake of drier and more retentive feed; it has a tendency to satiate the appetite, and to create disrelish for hay and sometimes even for meal and grain, without being a substitute for either.

I have known animals which were allowed to feed late in autumn, in well set luxuriant enclosures of aftermath, actually lose in weight, while the opposite result was clearly manifest in others which were kept up, and supplied only with hay. If we are so situated as to be sure of a competent supply of cured food during the winter, without incurring extravagant outlays of cash, it is perhaps better, on the whole, to restrict our stock—with the exception of sheep and cows in milk, as much as possible to cured fodder.

But sheep and cows should be allowed to partake of green feed as long as it is to be obtained. They do better on it than on hay, even if they are supplied with grain. Sheep, how-

ever, are of all animals, perhaps, the most decidedly injurious to mowing lands, when allowed to feed late in the fall. The formation of their mouths, and particularly of their teeth, enables them to cut closer than animals—often below the surface of the soil, thereby fatally injuring the roots by laying them bare and exposed to frost. But the cow can effect little damage in this way. She is not so rigid an economist, or perhaps, I should say, is far less greedy and voracious, and takes only what the plants can spare as well as not.—*Germantown Telegraph.*

Fixing Ammonia in Stable Manure.

EDITORS OHIO CULTIVATOR:—In the Annual report of Franklin County Agricultural Society to the Ohio State Board of Agriculture, as I find it published in the Seventh Annual Report of the Board of Agriculture for the year 1852, p. 200, the President says—

“Prof. Liebig has taught us, that in 4,000 lbs., of horse manure, when rotted, there is but 250 lbs., or one sixteenth of real manure, the residue, fifteen-sixteenths, having escaped in the atmosphere. Common sense should teach us, that when manure is fresh we can save the ammonia from escaping, by the application of slacked lime, making such a compost, the cheapest and most valuable within our reach, except green crops.”

Now, common sense teaches us no such a thing, because chemistry, the science to which agriculture is indebted to the greatest number of its late improvements, teaches us just the contrary, and the suggestion of your Franklin County Board of Agriculture is altogether erroneous, because it is in contradiction to the principles and experiments of chemistry.

Every chemist of but very little pretension, knows that lime, whether unslacked or slacked, when brought in contact with any salts, the basis of which is ammonia, will be decomposed, the ammonia as the weaker base, be set free, in which form, gaseous, it escapes into the atmosphere, and is entirely lost to the farmer who employs such a compost, unless it is immediately precipitated by a rain that may occur. This ammonia gas you find absorbed in the aqua ammonia, or spirits of hartshorn of our

drugstores, which is nothing but a mixture of said gas and pure water.

But there is a way to save a great deal if not the whole of this excellent fertilizer of the soil, which is not only not costly, but which will add to the value of the manure, if properly employed, besides avoiding injury to the eyes and general health of horses and other stock of our farmers, and drovers, and livery stable keepers, during the approaching hot season. It is simply this:

Make a mixture of about equal quantities of grossly pulverized charcoal and plaster of Paris, or gypsum, as it is frequently and properly called; sprinkle it once or twice a day over the floor of the stable, and put a layer of the same mixture about once in a fortnight over the dung heap, which should always be under cover, so as not to be exposed to the effects of the sun and rain, and my word for it, the farmer's outlay and trouble will be more than quadrupled by the improved health of his stock and the increased gain of his crops.

Yours respectfully,

DR. WM. ALBERT.

Cincinnati, June, 1855.

REMEDY FOR APPLE BORER.

FRIEND BROWN:—My object in addressing you at this time, is to inform your numerous subscribers and readers of the Farmer, of a new remedy for the grub or apple tree borer. Being near the sea-shore one day visiting a friend, I noticed the thrifty appearance of his young apple trees, and upon inquiring the cause, he informed me that he mulched them with rock weed, and that the borer never troubled them. Having just set out an orchard, I concluded to try the remedy. I have tried it for the last three years, and have not found a borer around one of them during the time, while my neighbors that do not use the rock weed, are losing their trees by their ravages. The mode of applying it is to dig the earth from around the collar of the tree, and then for a tree four or five years old, use from a peck to a half bushel of the weed, laying it upon the top of the roots immediately around the trunk of the tree. For larger-sized trees use about the same proportion. I would state that my trees are set out upon greensward, and as a matter of course, the borer would be more apt to trouble them

than if cultivated among. I have never known a tree attacked by the borer, where the rock weed has been applied. O. A. H.

Yarmouth, Me., June 23, 1855.

[*N. E. Farmer.*]

MACARONI.—Although macaroni is a national dish of the Italians, and made best in the vicinity of Naples, it is nevertheless manufactured both in France and Germany,—that of Aix in France being particularly celebrated. It seems to require a particular description of wheat to give it that expansive power in water which makes the finest qualities, and its manufacture has not heretofore flourished much in this country, the consumption here being supplied chiefly by importation. Those who are familiar with Italian Comedy will remember the Neapolitan macaroni-eater who figures so often, and who is always represented as devouring pieces of immense length, something as the conjurer does a roll of ribbon. It is a very healthful and convenient article of diet; and if we examine the process of manufacture, we shall see some especial reasons for patronizing the home production. Farina is a sort of granulated wheat the white or brittle part of the grain being separated from the fibrous part, and broken into uniform grains like fine sand. Macaroni is made of farina, ground and formed into dough by being mixed with distilled water. This dough is made very stiff, and the mixing and working of it cannot be done without the aid of machinery.

FALL TURNIPS.—This is an important crop, and it should not be overlooked by farmers.—A sufficient quantity of fall turnips can generally be obtained from headlands, moist places in cornfields when the crop is thin, and generally among corn when its growth is not too large and the crop is not planted too closely. From the 20th of July to the 15th of August is the best time to sow. If the land is plowed ten days before sowing, the better, as the turnip fly is by that means destroyed.—The ground should be well prepared, and manured with guano or super-phosphate of lime. The purple top turnip is, in our judgment, decidedly the best, and if the seed be drilled in rows thirty inches apart, and the plants thinned out to six inches apart, an abundant crop of large turnips may be calculated on.—*Ger. Telegraph.*

IMPROVED IMPLEMENTS.—Provide yourself with the best of implements. This is an age of improvement, and oftentimes an improved farming implement—though it may cost much more than an old fashioned one, will be found infinitely the cheaper of the two, in the end. The improved plows, cultivators, hoes, scythes, forks of all kinds, together with the chaffing, the rasping, the reaping, mowing, and other newly invented implements, are effecting an entire revolution in agriculture.—Not only is the farmer enabled through this assistance to perform a much greater amount of labor with the same help, but to perform it much better. Toil seems robbed of its onerousness, and the most irksome details of husbandry are performed, if not with pleasure, at least with the greatest ease. You should avail yourself of all these resources.—*German town Telegraph.*

BEE-STING AND TOOTH-ACHE.—The pain of a bee-sting may be at once relieved, and the subsequent swelling prevented, by wetting the part with spirits of hartshorn (water of ammonia.) The sting is hollow, and there is a little drop of poison at its root that is driven through it by the pressure of its insertion, and deposited in the wound. The poison is said to be of an acid nature, and to be destroyed by this volatile alkali.

The pain of tooth-ache, also, is relieved oftener by a few drops of hartshorn on a bit of lint inserted into the cavity of the tooth, than by any other application. Keep a vial of it, well corked, in the house, and if you are fortunate enough to need it for nothing else, use it to restore the color destroyed by fruit stains.—*American Agriculturist.*

SALE FAIRS.—A favorite idea of mine is to have Fairs something on the plan pursued in older countries; that is, to have some known place in each town or county, where on a certain day in each month, horses, oxen, swine, &c., &c., may be found for sale. For instance A. wishes to purchase a yoke of oxen, he must often travel over a large territory to find them, and at the same time B. wishes to sell a pair, he must attack every man he sees to find a purchaser. Now let there be a convenient place to take such things for sale, at a particular time, and that will be the place to find and

purchase what is wanted. What think you of this suggestion?—W. B. W., *Johnsville, N. Y.*, May, 1855.

If you are afflicted with any complaint which requires a Purgative Medicine, try Ayer's New Pills—they are worth trying.—*Con. Mer. N. C.*

The Farmer's Song.

Success to the jolly old farmer,
Who sighs at the tail of the plow,
The monarch of prairie and forest,
Tis only to God he may bow.
He is surely a fortunate fellow,
He raises his bread and his cheese:
And though hard is his labor in summer,
In winter he lives at his ease.

When the reign of winter is broken
And spring comes to gladden and bless;
When the frogs in the meadow are sporting,
And the robin is building her nest—
The farmer walks forth to his labor,
And manly and firm is his tread,
And he scatters the seed for the harvest
That yields to the nations their bread.

His banks are all chartered by nature,
Their credits are ample and sure;
His clerks never slope with deposits,
Pursued by the curse of the poor,
His stocks are the best in the market;
His shares are the shares of the plow;
They bring the bright gold to his coffers,
And pleasure and health to his brow.

When his crops are gathered and sheltered,
When his cattle are snug in the fold;
He sits himself down by the fireside
And laughs at the tempest and cold.
A stranger to pride and ambition,
His duty he strives to fulfil,
Determined whatever betides him,
To let the world jog as it will.

His trust in Him who has given
The seasons, the sunshine and rain,
Who has promised "seed time and harvest,"
So long as the earth shall remain.
And if from his duties he wander,
Led on by his venturesome will,
Through life and its changing relations,
God's Providence follows him still.

State Fairs for 1855.

Georgia, - - - -	Atlanta,	Sept. 10—15
Vermont, - - - -	Rutland,	" 11—13
Canada East,	Sherbroke,	" 11—14
New Hampshire,		" 12—14
Ohio,	Columbus,	" 18—21
New Jersey,	Camden,	" 19—21
Pennsylvania,	Harrisburg,	" 25—28
New York,	Elmira,	Oct. 2— 5
Michigan,	Detroit,	" 2— 5
Missouri,	Brownville,	" 2— 5
Tennessee,	Nashville,	" 2— 6
Illinois,	Chicago,	" 9—11
Connecticut,	Hartford,	" 9—11
Canada West,	Coburg,	" 9—12
Iowa,	Fairfield,	" 10—12
North Carolina,	Raleigh,	" 16—19
Indiana,	Indianapolis,	" 17—19
Alabama,	Montgomery,	" 23—26
Maryland,	Baltimore,	" 30 Nov 2

Extract from a letter by the Rev. Mr. Churchill, of Boston, who is now travelling for his health in the East.

"It gives one an ever present idea of the expansive enterprise of his countrymen, to find their commodities of commerce continually in his path wherever he goes; I have not visited any considerable city of Turkey, where I did not find the Medicines of my country represented by Ayer's Cherry Pectoral. In Smyrna, Aleppo, Jaffa, Jerusalem and Constantinople, we see in each, on the door post of some bazaar, the perfect American looking Iron card, of Mr. Ayer, saying in language which not one in a thousand of the passers by can read, "Ayer's Cherry Pectoral for Coughs, Colds and Consumptions, Sold Here." On a shelf behind the cross-legged mussuinan, are seen the bottles with their English, Spanish, French and German faces turned towards the crowd, and on enquiring we are told that foreigners are not the only purchasers, but the true believers themselves waive their trust in fate to try this product of American skill, when they find there is no other cure for them."

I was told yesterday that the Cherry Pectoral had been presented to the Sultan, and is now in constant use in his harem, and in the Hospitals of the Empire."

Read this No. of the Cultivator.

Table of Contents.

Agricultural Branch of the Patent Office,.....	184
A Short Chapter on Horses,.....	186
Ayer's Cherry Peetoral,.....	204
Bee-Sting and Toothache,.....	203
Blackberries,.....	201
Communication,.....	175
Clay as Manure,.....	194
Domestic Receipts,.....	200
Fixing Ammonia in Stable Manure,.....	202
Fertilizing Agents,.....	192
Feeding, Mowing Lands in Autumn,.....	201
Glue for Plants,.....	186
Grouting, Mulehing, and Watering,.....	191
Hide Bound,.....	193
Improved Implement,.....	203
Influence of Climate on Stock,.....	197
Keep Fruit Trees Straight,.....	186
List of Premiums,.....	177
Lime vs. Sorrel,.....	194
Letter to Mr. Eli Murray, Sr.,.....	190
Milking Cows,.....	189
Mulehing Newly Planted Trees,.....	185
Mulehing with Shavings,.....	188
Making and Keeping Butter,.....	199
Maeroni,.....	203
On the Importance of Ventilating Stables to Prevent Disease,.....	182
Plowing,.....	197
Points of a Good Horse,.....	187
Preserving Fruits,.....	185
Pigeons in Persia,.....	196
Remedy for Apple Borer,.....	202
Simple Remedies,.....	201
Sanitary Substances,.....	196
Setting Hens,.....	196
Sale Fairs,.....	203
State Fairs for 1855,.....	204
Saddle and Collar Sores,.....	194
The Hog Crop,.....	195
To Keep Flies from Troubling Horses,.....	188
The Farmer's Song,.....	204
Work in the Garden,.....	188
Wooden Railroad Car Wheels,.....	189

SUPERIOR STOCK FOR SALE.

THE SUBSCRIBER EXPECTING SOON TO remove from the State, offers for sale a number of Pigs of the SUFFOLK and ESSEX breeds. Also some beautiful half breeds of both stocks.

Also, some fine fowls of the Brama Pootra and Shanghai breeds. The white Shanghais he regards as far preferable to all other breeds, having tried nearly all. Address,

J. R. GARLICK,
Murfresboro', N. C.
t.-

May 1855.

GILBERT'S
PATENT IMPROVED WHEAT FANS.

The Subscriber, successor to McElwaine & Burnett, having located permanently at Henderson for the purpose of Manufacturing the above Fans, is now offering at wholesale and retail Fans on such terms as think will please. I challenge the world to produce

their equal, as many of the best planters having tried them do not hesitate to say that they *can't be beat!*

They will chaff sixty bushels per hour. The very best lumber and materials are used in making these Fans—the irons are all turned and polished smooth, so that they work easier than most Fans—are simple in their construction, but will CLEAN ALL KINDS OF GRAIN!

The Hoppers are large and only require the grain to be thrown into them and they feed themselves.

Don't be deceived by appearances. Some Fans are made at Henderson which resemble them, but unless my name is bronzed on them, they are not mine.

Having located a Branch at Graham, Alamance co., he will furnish to the Planters in that and surrounding counties Fans at the same rate, delivered as heretofore from Henderson.

N. B. Every Fan is warranted perfect. Retail price \$30—a liberal discount made to the trade. I will also furnish to order Wheat Drills, Horse Powers, Threshers, Corn Shellers, Stalk Cutters, Chain Pumps, &c., of northern manufacture on the most liberal terms, all of which samples are kept constantly on hand.

I return my thanks to the citizens of Granville and surrounding counties, for the liberal patronage I have heretofore received, and which I shall endeavor to continue to merit. C. BURNETT.

Henderson, N. C. June 1st, 1855. 4-6t.

TO SOUTHERN AGRICULTURISTS.

An intelligent, steady and practical farmer, who has had 25 years' experience in the most productive wheat and stock regions of Maryland, offers his services as manager on some large estate in the South—he is perfectly familiar with the management of estates, and can furnish the most ample testimonials of his character from the highest sources in that State. His qualifications as a farmer and stock raiser are such as is rarely to be found any where. Address

"AGRICOLA," Washington, D. C.

THE ORANGE IMPROVED STUMP MACHINE.

PATENTED MARCH 6TH, 1855.

FRIENDS OF AGRICULTURAL IMPROVEMENT:—

Having just secured a patent on my IMPROVED STUMP EXTRACTOR, upon the croche and steel-yard principle, I am free to say that I wish this Machine brought into general use, because I need some compensation for the pains I have taken to bring it to its present state of perfection, and because it is desperately needed—for much beautiful land in many States of the Union, is delaced by odious stumps. This Machine has no rival; its power is very great; its action very rapid, and hence, it may be made to hurl an acre of stumps from their dominion in a very short time.

I manufacture these machines at Orange, Mass., where I hold myself ready to furnish them, when ordered from any part of the country. The price will range from \$125 to \$150, according to extent of chain, and weight of iron. I should add, however, that the Machine is simple in structure, and with the Model I furnish, may be manufactured by any good and intelligent blacksmith.

My title: *Gilbert's Improved Patent, good for fourteen years, covers the nation, and I am ready to sell Rights to towns, counties, and States, at rates altogether reasonable.* Please apply at once: my prices shall be low, my terms of payment easy, and if it is wished, I will take real estate or other property in exchange.

Yours very respectfully, W. W. WILLIS.

Orange, April 1, 1855.

A few good AGENTS wanted to Exhibit and sell this Machine in different quarters of the Nation

DR. STRONG'S COMPOUND SANATIVE PILLS

These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Sorefula, Salt Rheum, Fevers of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of Piles, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also

DR. STRONG'S PECTORAL STOMACH PILLS

A remedy for Coughs, Colds, Catarrh, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a deranged state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, in weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expectorant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Syrups, Balsams, or Sarsaparillas, that were ever made; and a simple trial of only one box will prove this important truth.

They promote Expectoration, Loosen the Phlegm, and Clear the Lungs and other Secretory Organs, of all morbid matter, and there is not another remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. They Cure Costiveness, produce a good, regular Appetite, and Strengthen the System.

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the *Planter's Almanac* GRATIS, giving full particulars and certificates of cures.

Both kinds of the above-named Pills are for sale in **Every Town and Village in North and South Carolina.**

And at Williams & Haywood, Raleigh, N. C.
May 1855. 3—

TO PLANTERS.

THE UNDERSIGNED HAS BEEN appointed Agent for the sale of "KETTLEWELLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of COTTON and CORN, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to its yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by HENRY NUTT, Agent for the State of North Carolina, at Wilmington. 3—

PURE MERINO SHEEP FOR SALE.

I HAVE A FEW YEARLING RAMS, AND Ewes, from one to three years old, which I will sell. Also three Rams older, and very choice. They can be sent to any part of the country with safety—For prices, &c., apply to T. C. PETERS,

Darien, Genesee Co., N. Y.

May 1855.

tf.—

NORTH CAROLINA MUTUAL LIFE INSURANCE Company, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the **MUTUAL PRINCIPLE**, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$30, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 90 days after satisfactory proof is presented.

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WM. D. HAYWOOD,	WM. D. COOKE,
JAMES F. JORDAN,	R. H. BATTLE,
H. W. HUSTED,	WM. H. JONES,
WM. H. MCKEE,	F. C. HILL,
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WILLIAM D. HAYWOOD, Vice President,	
JAMES F. JORDAN, Secretary,	
WILLIAM H. JONES, Treasurer,	
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WILLIAM H. MCKEE, M. D. } Board of	
RICH'D. B. HAYWOOD, M. D. } Consultation.	
WILLIAM D. COOKE, } Executive Com-	
W. W. HOLDEN, } mittee.	
CHARLES B. ROOT,	

J. HERSMAN, General Agent.

Communications should be addressed, (post paid) to JAMES F. JORDAN, Secretary.

NORTH CAROLINA MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE NORTH Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

DIRECTORS:

J. B. G. Roulhac, Raleigh.	
Henry D. Turner, do.	
J. R. Williams, do.	
T. H. Selby, do.	
C. W. D. Hutchings, do.	
James F. Jordan, do.	
James M. Towles, do.	
James E. Hoyt, Washington.	
Alex. Mitchell, Newbern.	
Joshua G. Wright, Wilmington.	
John M. Jones, Edenton.	
W. W. Griffin, Elizabeth City,	
F. E. Fagan, Plymouth.	
W. N. H. Smith, Murfreesboro'.	
H. B. Williams, Charlotte.	
Geo. A. Smith, Milton.	
O. F. Long, Hillsboro'.	
Joseph White, Anson County.	
Josh. Boner, Salem.	
A. T. Summy, Asheville.	

OFFICERS OF THE COMPANY.

J. G. B. Roulhac, President.	
H. D. Turner, Vice President.	
John C. Partridge, Secretary.	
John H. Bryan, Attorney.	
J. Hersman, General Agent.	

John R. Williams,	} Executive Committee.
T. H. Selby,	
C. W. D. Hutchins,	

This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam

Mills and Turpentine Distilleries,) upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid.

J. C. PARTRIDGE, *Sec'y.*

Raleigh, Jan. 9th, 1855.

ENGLISH CATTLE, SHEEP AND SWINE.

ALSO Mules and Merino Sheep from Spain. Selected and imported on commission to any Atlantic sea port in America, by Thos. Betts & Co., at Liverpool and Herts, England.

Circulars containing the prices of all kinds of English Stock, and the expenses from England to America, including insurance can be received by applying personally or by post to G. M. Miller 81 Maiden Lane, New York City. Agent for

THOS. BETTS & CO.

FARMER'S HALL,

RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855.

no. 1—tf.

AYER'S PILLS,

A new and singularly successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fever, Gout, Hu-mors, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the hearses all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

Dr. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

Hon. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINTHROP, Ex-Speaker of the House of Representatives.

ABBOTT LAWRENCE, Minister Plen. to England.

† JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, Dr. J. R. CHILTON, Practical Chemist, of New York City, endorsed by

Hon. W. L. MARCY, Secretary of State.

WM. B. ASTOR, the richest man in America.

S. LELAND & Co., Prop'r of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been sned, but evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded not of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should prove as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulæ by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few would be taken if their composition was known! Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge on the subject freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by scientific men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal viscera to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their irregular action to health, and by correcting, wherever they exist, such derangements as are the first origin of disease.

Being sugar wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

Practical and Analytical Chemist.

LOWELL, MASS.

PRICE 25 CENTS PER BOX. FIVE BOXES FOR \$1.

SOLD BY

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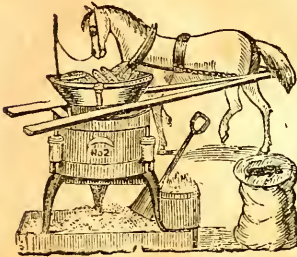
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BORUM & MCLEAN,

No. 11 WATER-STEET,
NORFOLK, VIRGINIA,

Have the Largest Assortment of Agricultural Implements in the State; they are engaged largely in Manufacturing, and can furnish any variety of Implements at short notice:

SCOTT'S LITTLE GIANT CORN AND COB CRUSHER,



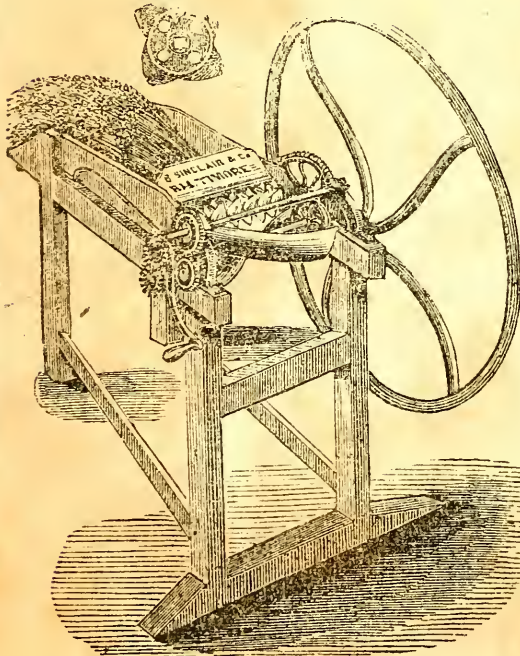
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These Mills are sold at "Farmer's Head-Quarters," Norfolk Virginia, by BORUM & MCLEAN, at the following prices:

No. 2	Grinds 10 bushels per hour, with one horse, -	\$46 00
" 3	" 15 " " " two " -	57 00
" 4	" 20 " " " two " -	68 00

Two dollars deduction made on each size for Cash, upon delivery of the machine. A full stock of them always on hand, and orders filled promptly.

SCREW PROPELLER STRAW CUTTER.



This is probably as good and strong a Machine for cutting Shucks, Stalks, Oats, Straw, Fodder, etc., as any other Cutter ever made, a great number of them have been sold and they give general satisfaction.

Orders filled at "Farmer's Head Quarters," at Factory prices,

11 inch Cylinder, - - \$30 00

Large sizes for horse power, \$38 to \$45

Orders filled promptly, by

BORUM & MCLEAN,
11 Water-street, Norfolk, Va.

Wheat and Corn Fans.

Montgomery's Celebrated Wheat Fan, \$34

Bamborough's do do do No. 2, 30

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extra, No. 1, 34

Sinclair's Fan for Corn, Oats, Wheat and

other grain, No. 1, 28

do 2, 33

do 3, 38

Clinton's Small Fans, 13 @ \$20 each.

Giant's Patent Fans, all sizes, from 16 @ \$30

each.

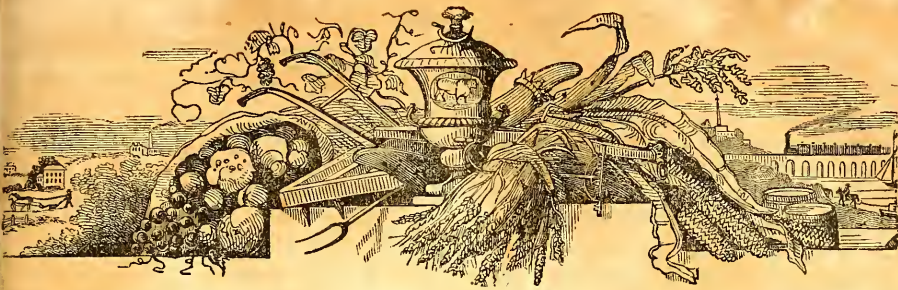
Plows, Harrows, Cultivators, Straw Cutters, Fan Mills, &c., in great variety, made by us in the best manner, and well suited to the wants of Southern Farmers.

Orders for our Catalogue will be mailed, gratis, upon application,

BORUM & MCLEAN.

Norfolk, Va.

Aug. 1855,



THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

WILLIAM D. COOKE, PUBLISHER.

VOL. 1.

RALEIGH, N. C., SEPTEMBER, 1855.

NO. 7.

The Farm Supports All.

People may reason and theorize about the comparative usefulness of different pursuits and occupations. We will not quarrel with any man, because he insists that a trader or broker is as useful a man as the farmer, but we quarrel with any man in a gentlemanly way, who will not admit that the farmer's life does possess as much true dignity and utility as any other. We will, for civility sake, admit equality, but can acknowledge no superiority.

Agriculture is the basis of all national prosperity. A child may see that if the earth is not cultivated, the whole population in a single year, or at most, in two years, when the cattle are consumed, must literally starve, while society could exist to an indefinite extent, were the labors of any other interest to cease at once. Observe the course of trade, and inquire of the merchants even in our own country, and we shall find, that upon the products of the soil does all the prosperity of trade depend. If the cotton crop is short, the southern trader cannot order goods from the North, or having ordered, fails, and cannot pay for them. He fails because the planter having fed to his negroes all his corn and bacon, has nothing left wherewith to pay for his family supplies. If the wheat crop fails, the Boston and New York merchants at once feel the effect of

the failure, for the Western merchant cannot meet his liabilities, nor incur others.

When all things are prosperous, the farmer is almost forgotten. He labors hard and brings the product of his labor to a full market. He is met by sharp speculators with the cry, that the market is glutted, and his supplies are not wanted, and is compelled, because he cannot enter into combinations to meet the banded monopolizers, to sell at a price which gives him but scanty pay for his industry. He feels that all the world is prosperous except himself, and the trading public, forgetful or careless that the farmer maintains and even produces all this prosperity by his quiet pursuits, look down on him, perhaps, with contempt.

To be sure, he has at such times, in common with others, enough of food and clothing. He does not want, but his abundance and success seem to profit others more than himself. Indeed, he hardly participates in the general prosperity which his own hard work and watchful care has created.

But by-and-by the scene changes. The crops are short in some sections of the country. Supplies are not forwarded to the great marts of trade for the adequate supply of the inhabitants of the cities themselves, or to meet the demands of commerce. Business is deranged, merchants fail, the country traders are discouraged, the whole country languishes, and there is a general cry of hard times. But the

farmer does not fail. He raises his own food in abundance still. What he can spare brings him an increased price in the market. The traders and speculators come to his very doors, and entreat him to sell them at any price enough to meet the present necessities of their business. And so, when the earth is laid waste, and labor diverted from its legitimate pursuits, by want. Then the farmer increases his exertions. He sows more broadly, he labors more earnestly. He feels that men in foreign lands, who are dragged by hard masters from their homes to engage in bloody battles, are dependent on him for their daily bread. Still his own supply is abundant, and others demand a share, and offer him a generous reward for his labor. The world, stupid as it often is, in times of general peace and prosperity, now appreciates the farmer's useful life.

What, then, is the true position of the cultivation of the land? Is it one of hard work and servile labor only, or is it one of dignity and importance, indispensable at all times?—Farming is, doubtless, hard work, in the general acceptance of the term, but it is a great mistake to call that only hard work, which is performed with the hands. The lawyer, confined to the stifling and cramped air of a court room for days and weeks, with the property and lives of his clients at stake, and dependent on his watchful, constant care; the minister, bound to his stated preaching, whether in health, or feeling himself sinking already under his harassing and never-ceasing responsibility; the doctor, called out at midnight to prescribe in an instant, in a new and doubtful case,—these have all their labor, harder work than any performed by the hands alone. Many farmers labor too severely, more so than there is any need of; but still, we think, their hardships are not so great as those incident to the professions we have named. They have, besides, what traders and speculators, and even mechanics, can never have, what is really a source of more enjoyment than wealth can bring—they have security for the future. They plant and sow in faith, and with full assurance that the harvest will not fail. Railroad and bank stocks may rise or fall, the market for their own produce may be high or low, war or peace may prevail, free trade or high duties may triumph, but they know that "God giveth the increase," and that they and theirs are de-

pendent on him alone. Youngmen make haste to be rich. They forsake their "paternal acres," and strive in doubtful paths to outstrip the fickle goddess, Fortune.

As age brings reflection, and juster views of the true objects of life, most men place a higher value on the peaceful pursuits of agriculture. The repose and serenity of a farmer's life have charms for them, beyond riches, and all the pleasures wealth can buy.

Indeed, it is rare to find a merchant, or successful mechanic, who has in early life left his rural home for a life in the city, who does not look forward with pleasant anticipations to the day, when he shall return once more to his native hills, or at least to the occupation of a homestead, where his children may imbibe true ideas of the dignity and independence of a life on a farm.

This may seem a trite and common-place subject. We claim no originality for these thoughts, but it would seem that now, when wars are desolating the earth, when prices are paid in our markets that would indicate that famine must somewhere prevail, it would seem that now, both the farmer himself, in his independence of other men from the vicissitudes of life, and all others, in their dependence on him for daily food, might see and feel, what more than all else we would impress on all, that Agriculture is the foundation of national prosperity, and that the position of the farmer is entitled to be that of the highest honor.—*N. E. Farmer.*

TO PREVENT BOTS IN HORSES.—A person of much experience in veterinary science, is never troubled with this disease in his horses. His simple practice during the fall month is, to keep a greasy cloth in the stable, and once a week rub with it such parts of the animal as may have been attacked by the nit-fly. Grease destroys and prevents the eggs from hatching.

TO RENOVATE SILK DRESSES.—Take the water in which potatoes have been boiled, dip therein a clean sponge, rub carefully, then take a cloth and wipe evenly on the surface. Potatoe water not only renews the lustre of silks, but stiffens them as if starched. Gentlemen's cravats treated in this manner have all the appearance of new goods.

Economic Cultivation.

We have repeatedly seated ourselves with the intent of writing upon the best mode of cultivating the various crops, and almost as often have we actually had our attention turned to and written upon some other topic. The reason is this: No one, except the favored few who have all the means at command needful in carrying out their plans of farm operations, can do half as well as they know how to do. Their land is poor, and they have not the means of enriching it. Tell a man that a purse full of gold is only an inch beyond his utmost reach, and you do him no good but to excite feelings of discontent and envy, and even lead him to forego certain improvements which are within his reach, because they pay so little compared with what he is really anxious but unable to do. Poverty is a terrible burden, and nowhere is it felt more than among intelligent farmers.

Notwithstanding these difficulties, we would now urge this class of farmers, first, to expend their labor and their fertilizers upon a much smaller quantity of land than is usually done. Instead of planting five acres of corn, plant two, or even one; and plow and cultivate this small field to the entire neglect, if need be, of other acres. If those lie fallow it will be useful to the soil, and at least no money will be wasted upon them.

We say to such farmers, in the second place, you can do more than you have done in the preparation of various composts. There are very few farmers who can not double and treble the quantity and value of these necessary means of restoring vigor to worn-out and barren soils. By diminishing the extent of surface under cultivation, and by proper industry in preparing composts, there is scarcely a farm in the country that cannot be made to produce its sixty, and seventy, and eighty bushels of corn to the acre. And even though one acre only is brought up to this desirable condition, a series of years will suffice to bring the whole farm to a high state of cultivation. If only small fields are made thus productive, the hopes and courage of the farmer will be thereby excited, and he will stand up manfully among men, and tell of his success as well as they.

We would not advise farmers of *limited means* to buy guano nor phosphates at any-

thing like their present prices. Pay your poorer neighbor his six or eight shillings a day (if you cannot *exchange* work with him) to help you collect leaves from the forest, mud from the meadow, carting the latter only after it is tolerably dry, peat or marl from the bog; and if you can buy barn-yard manures, mix them with turfs, sods, roots, weeds, dirty straw, spoilt hay, chips that are unfit to burn; and if you are conveniently situated for it, get seaweeds from the sea-shore, oyster shells, old bones, horns, etc., etc. Dead animals are of great value. The offal from a slaughter-house, worthless scraps of hides, bones, etc., etc., should be used only with large quantities of common soil, or of some other solvent. Not one in a hundred turns to the best account the contents of privies, hog-pens, soap-suds, and other kinds of waste.

Pardon us for asking why will you tax yourselves so severely by neglecting any of these modes of improving your lands? It may be only such neglect that keeps you in poverty; and though you enter upon the work with many painful doubts in relation to the result, we will assure you against loss from any such operations, if conducted with tolerable discretion.

Now is the time to commence this system of operation for the next year. On every leisure day, let the time be occupied in these preparatory labors. Every hour thus spent is worth something, and will tend to fill your purse at the time of harvest.

Almost all farmers sadly neglect their barn-yard manures. Were these properly cared for, their value, as a whole, would be more than double.

Having thus suggested the means by which manures may be provided, the next inquiry is, how and where shall they be used? Perhaps we are unable to give the information that many would desire, for reasons suggested in the last number. Perhaps you have an enclosure that for many years produced very large crops, and you just looked on and watched your opportunity to take from it the most you could get, returning nothing to it. It may be that it is so situated that it is almost able to take care of itself, like much of the interval on the Connecticut, which is annually enriched by being overflowed. If this is so, we should labor to hasten this process of improve-

ment, and should do all in our power to get this soil back into the condition of a fertile field. When this is accomplished, take the next promising lot, leaving the more desperate cases to the last. When you plow your clayey grounds, fill in, without stint, a sandy compost. If the field is sandy, plow in a clay compost. This need not be a costly job, but generally is practicable for the poorest farmer. If you have a boggy meadow, a thorough ditching will be a part of the process necessary in reclaiming it, while the material thus thrown out is exactly what some other soil most needs. Compensations are not found only in the structures of animals, but they occur in almost every farm the world over.

The Plough, Loom and Anvil.

Maize or Indian Corn.

Among the objects of culture in the United States, the maize or Indian corn takes the precedence in the scale of crops, as it is best adapted to the soil and climate, and furnishes the largest amount of nutritive food. When regard is paid to the selection of varieties and cultivated in a proper soil, it may be accounted as a sure crop in almost every portion of the habitable globe, between the forty-fourth degree of north latitude and a corresponding parallel south. Besides its production—in this country its principal culture—is limited to Mexico, the West Indies, most of the States of South America, France, Spain, Portugal, Lombardy, and Southern and Central Europe generally. It is also cultivated with success in northern, southern and western Africa, India, China, Japan, Australia and the Sandwich Islands, the groups of Azores, the Madeiras, the Canaries, and numerous other ocean isles.

Although there has been much written on the eastern origin of this grain, it did not grow in that part of Asia watered by the Indus at the time of Alexander the Great's expedition, as it is not among the productions of the country mentioned by Nearchus, the commander of the fleet; neither is it noticed by Arian, Diodorus, Columella, nor any other ancient author; and even as late as 1491, the year before Columbus discovered America, Joan di Cuba, in his "*Ortus Sanitatis*," makes no mention of it. It has never been found in any ancient tumulus, sarcophagus or pyramid, nor has it ever

been represented on any ancient painting, sculpture, or work of art, except in America. But in this country, according to Garcilaso de la Vega, one of the ancient Peruvian historians, the palace gardens of the Incas, in Peru, were ornamented with maize in gold and silver, with all the grains, spikes, stalks and leaves; and in one instance, in the "garden of gold and silver," there was an entire corn field, of considerable size, representing the maize in its exact and natural shape; a proof no less of the wealth of the Incas than their veneration for this important grain.

In further proof of the American origin, it may be stated, that this plant is still found growing in a wild state from the Rocky Mountains, in North America, to the humid forests of Paraguay, where instead of having each grain naked, as is always the case after long cultivation, it is completely covered with glumes or husk. It is furthermore a well authenticated fact that maize was found in a state of cultivation by the aborigines, in the Island of Cuba, on its discovery by Columbus, as well as in most other places in America, first explored by Americans.

The first successful attempt to cultivate this grain in North America, by the English, occurred on James's River, in Virginia, in 1608. It was undertaken by the colonists sent over by the London company, who adopted the mode then practiced by the natives, which, with some modification has been pursued throughout the country ever since. The yield at that time is represented to have been from two hundred to more than a thousand fold. The same increase was noted by the early settlers of Illinois. The present yield, east of the Rocky Mountains, when judiciously cultivated, varies from 20 to 135 bushels to an acre.

The varieties of Indian corn are very numerous, exhibiting every grade of size, color and conformation, between the "chubby red" that grows on the shores of Lake Superior—the gigantic stalks of the Ohio Valley—the tiny ears, with flat, close, clinging grains of Canada—the brilliant rounded pearl—the bright red grains and white cob of the eight-rowed hémalite—the swelling ears of the big white and yellow gourd seed of the South. From the flexibility of this plant, it may be acclimated, by gradual cultivation, from Texas to Maine, or from Canada to Brazil; but its character in

either case is somewhat changed, and often new varieties are the result. The blades of the plant are of great value as food for stock, and is an article but rarely estimated sufficiently, when considering of the agricultural products of the Southern and Western States especially.

The increase of production from 1840 to 1850 was 214,000,000 bushels, equal to fifty-six per cent.

The produce of New England has advanced from 6,993,000 to 10,377,000 bushels, nearly 50 per cent; New-York, New Jersey, Pennsylvania, Delaware and Maryland increased 20,812,000 bushels, more than 50 per cent. In the production of this crop no State has retrograded. Ohio which in 1840 occupied the fourth place as a corn producing State, now ranks as the first. Kentucky is second, Illinois third, Tennessee fourth. The crop of Illinois has increased from 2,000,000 to 5,500,000 bushels, or at the rate of 160 per cent. in ten years.

Of the numerous varieties some are best adapted to the Southern States, while others are better suited for the Northern and Eastern. Those generally cultivated in the former are the Southern big and small yellow, the Southern big and small white flint, the yellow Peruvian, and the Virginia white gourd seed. In the more northerly and easterly States, they cultivate the golden Sioux or Northern yellow flint, the King Phillip or eight-rowed yellow, the Canadian early white, the Tuscarora, the white flour, and the Rhode Island white flint.

The extended cultivation of this grain is chiefly confined to the Eastern, Middle and Western States, though much more successfully grown in the latter. The amount exported from South Carolina in 1753, was 39,308 bushels; from North Carolina in 1753, 61,580 bushels; from Georgia in 1755, 600 bushels; from Virginia for several years preceding the Revolution, annually, 600,000 bushels; from Philadelphia in 1765-6, 60,205 bushels, in 1771, 259,441 bushels.

The total amount exported from this country in 1770, was 578,349 bushels; in 1791, 2,064,936 bushels, 351,695 of which were Indian meal; 1800, 2,032,435 bushels, 338,108 of which were in meal; in 1810, 1,140,960 bushels, 86,744 of which were in meal. In 1820-21 there were exported 607,277 bushels of corn and 131,669 bbls. of Indian meal; in 1830-31,

571,312 bushels of corn, and 207,604 bbls. of meal; in 1840-41, 535,727 bushels of corn, 232,284 bbls. meal; in 1845-46, 1,286,068 bushels of corn, and 298,790 bbls. of meal; in 1847-48, 16,326,050 bushels of corn, and 203,622 bbls. of meal.* More than eleven millions of bushels of Indian corn was consumed in 1850, in the manufacture of malt and spirituous liquors.

* The fluctuations in the amount exported in 1845, 46, 47 of this as well as the other kinds of grain cultivated in this country, were occasioned by the great famine in Ireland, caused by the failure of the potato crops in those years.

What Food will Produce the most Wool?

Peas, beans, vetches, etc., are useful for the purpose of enriching the blood, by furnishing it with large quantities of albumen, which is its principal constituent. It will be remembered that in the analysis of flesh and blood the relative proportions of their constituents are nearly identical; consequently, whatever food contains nitrogen, and the greatest amount of albumen, is best adapted to the development of flesh or muscle, and is therefore the most nutritious. Wheat, rye, barley, and buckwheat, contain large quantities of albumen, especially the first two; while oats, it will have been seen, contains ten and a half per cent. of its organic elements of albumen, and peas and beans no less than twenty-nine per cent. What conclusion, then, is to be drawn from this? The chemical composition of horns, hoofs, hair, wool, and even feathers, is substantially the same; their organic elements are coagulated albumen and gelatin, and their inorganic, silica, carbonate and phosphate of lime, and the oxides of iron and magnesia. Hence it will readily appear that food given to the sheep which will supply the greatest proportion of albumen, in the same ratio will increase the wool secretions, and, consequently, be productive of the most wool, provided, however, they also hold in suitable combination the inorganic substances of wool, without which they assimilate mostly for the formation of flesh or fat. This may be exemplified thus: a soil may be highly productive of corn, as well as a few of the cereal grains, yet for the production of wheat it may lack the proper proportion of the phosphate and carbonate of lime, and, consequently, the berry will not only be deficient in quantity but quality.

The following table exhibits the results of the experiments of the distinguished agricul-

turist, De Raumer, of the effects produced by an equal quantity of several substances in increasing the flesh, tallow, and wool of sheep :

	living animal.	Increase weight of animal.	Pro-duced wool.	Pro-duced tallow.
	lbs.	lbs.	lbs.	lbs.
1,000 lbs. potatoes, raw, with salt,	46	1-2	6 1-2	12 1-2
do " do without salt,	44		6 1-2	11 1-2
do " mangel wartzel, raw,	38	1-2	5 1-4	6 1-2
do " wheat,	155		14	59 1-2
do " oats,	146		10	42 1-2
do " barley,	136		11 1-2	60
do " peas,	134		14 1-2	41
do " rye, with salt,	132		14	35
do " rye, without salt,	90		12 1-2	43
do " meal, wet,	129		13 1-2	17 1-2
do " buckwheat,	120		10	38

These results are said to agree with those of De Dombale, and with those of a number of other agriculturists.

It will be perceived by the above table that wheat produces the greatest increase in the flesh of the sheep, though but little greater than oats; that peas, wheat, and rye, produce the greatest increase of wool; and that barley and wheat cause the greatest increase of tallow. That, as an average, grain generally gives about three times the increase in flesh, that roots do when in equal weight; that grain produces about twice as much wool as is caused by equal weight of roots, and several times the amount of tallow.

The legitimate conclusion from the foregoing is, that the flock-master, whose object is wool only, must rely on good hay and some straw, whose constituents are admirably adapted for the growth and perfection of wool, with a moderate allowance, and daily, of ground peas and oats, and some potatoes as green food, for the greatest amount of wool; and those gross substances, oil-cake, corn-meal, ruta bagas, may be turned over the producers of fat mutton.—*Morrell's Shepherd.*

MARKING GEES.—A woman in Buffalo accused a neighbor of stealing her geese. She said she could swear to them, having put her mark on their feet, to prevent them from wandering to the canal for a swim. The geese were brought into court and her mark was proved to be—placing their feet on a brick and then jamming them with another brick until the poor birds could not walk. She called this, *her mark*, and rather boasted that the geese felt no inclination to stray away, after she had

put it on them! The Buffalo items man hopes that one day the cow-catcher will overtake her on the railroad, and put a mark on her without any charge.

Swine in New Hampshire.

Of swine, we have good, bad, and indifferent, resulting from neglect of any systematic course of breeding. Among our farmers and mechanics we frequently find specimens of hogs that will compare favorably, in every respect, with the Suffolk, or in fact with any other breed.—But these good points in individuals cannot be depended upon in all the pigs of the same litter, or even in the progeny of these almost faultless grunTERS. Some of their pigs may be extremely good, some indifferently so, and others decidedly bad—looking as if their "base, ignoble blood had crept through land-sharks ever since the flood." Where the "kith and kin" are so nearly allied, why such a difference? Simply because there has been no systematic course of breeding pursued among us long enough to "fix" any peculiarity of blood. It is a general law of nature for "like to beget like;" and by a long and judicious course of breeding, a race of cattle, sheep, or swine can be produced, the progeny of which will almost as nearly resemble each other as do a brood of our native quail or partridges.

In England, where the true principles of breeding have been pursued with the greatest care for a long series of years, they have several very valuable and distinctly marked varieties of hogs, each of which, when kept pure preserving its identity generation after generation. Among some of the most valuable breeds are the Middlesex, the Woburn, the improved Essex, and the Suffolk. The latter have been more largely introduced into this section of the country than any of the other kinds; and for the farmers and mechanics of New Hampshire they are thought to be the half-bloods, a much better breed than the mixed varieties now so generally kept; for the Suffolks are not large, coarse, bony hogs, but attain maturity at an early age, and may be always in a condition to kill from the time they are a month old. They readily weigh from 200 to 300 lbs. at six to ten months old, and a proportionate weight at twelve months. The pork is so much esteemed, that it generally commands from a cent to two cents a pound extra in the Boston market.—*Patent Office Report.*

Who are the Benefactors of Mankind?

Dean Swift, once remarked, that any one who should cause a blade of grass to grow where nothing grew before, was a benefactor to mankind. The object of the author of this remark, was to state in forcible terms, his opinion of the public benefit derived from all agricultural improvements. This saying was figurative: but it might be literally avowed that every man who plants a tree is a public benefactor, whether the value of the tree consists in its fruit, or its flowers, its timber, or even its shade; for, with regard to trees, it may be said that we often seek the substance for the sake of the shadow. We are acquainted with a single lady who makes the rational boast, that she has always planted a fruit tree in every place in which she has resided. Whenever she takes lodgings in any new house, if there be a garden attached to it, she plants a fruit tree upon the spot. Such acts, upon her part, seem to be disinterested, as her habit of moving from place to place, must prevent her from being the continual proprietor of these trees. Some one is benefited by them, and she enjoys the satisfaction of having done some good in the world. In these acts, she displays a true benevolence.

We know a gentleman who lived to see the folly of a different course of conduct. On moving his young family into a house which was connected to a large garden, he was advised to plant it with fruit trees. He rejected the advice, and not owning the place, replied that he should plant no trees for other people's benefit. He lived there about thirty years; and during this space of time he might have raised an abundance of fruit for his own family, and have seen many of the trees of his own planting, perish of old age. There is perhaps no species of selfishness so foolish as that which prevents one from planting trees; since their cost is but a trifle, and the labor of attending to a few individuals is both wholesome and agreeable.—And in this country, where property is so constantly changing hands, we can never predict when we plant another man's grounds, that these grounds may not become our own or those of our children.—*Mass. Magazine Horticulture.*

To DIVEST CALVES OF VERMIN.—It often happens that calves become covered with vermin,

causing them to lose flesh, and look very dull. To clean the calf is a very disagreeable piece of work; but if the following recipe is adhered to, they will become clean with a very little trouble. Give the calf a tablespoonful of brimstone for three mornings in succession; if one trial does not completely rid the calf, the second will never fail. I have tried it several times, and one has been enough in each instance.

Galls on Horses.

MR. EDITOR:—I have noticed lately in several agricultural papers, remedies suggested for galls on horses. Canal horses are more cruelly galled than horses in any other service. Generally they lie idle during the winter season. To a considerable extent, also, the horses of the farmer are but little used during the winter, especially when more than one span is employed on the farm. Ordinarily a single pair is well fed on grain so as to do the chief portion of the winter work, and the rest are kept at a cheaper rate, and do little or no work until spring. The result is, the breast and back of horses thus idle become tender, and when the hard work of spring commences, and the weather is warm and the animal sweats freely, the skin being tender is scalded, and then galled.

Now, prevention is better than cure. A cooling application, that will toughen the skin before use, and prevent inflammatory action when used, is what is needed for the work horse. From long experience, I have found these results to follow the use of spirits saturated with alum.

I keep a bottle of alum and whiskey in the stable, and bathe the part pressed by the hames, or breast collar, and also the back, for several days, before the horses commence their spring work, also along through the season occasionally, when there is special danger of scalding the breast. I have thus passed entire seasons, employing constantly not less than five horse teams in farming uses, and have not lost the service of a horse a single day, for years together, on account of sore back or breast.—This remedy will enable a sore to heal, although the animal continues in constant use. Now the remedy I have seen most frequently and highly recommended, is the application of white lead, in some form or other, to the injur-

ed part. I have at an early period tried this remedy—have used it when I knew nothing better—but dislike it much. It answers the purpose, I acknowledge—makes a hard, tough scab or incrustation on the sore, likely to terminate in a white spot, if the hair ever grows. But I consider this tanning the skin into leather, while on the horse's carcass, to be a *tough* business, to say the least.—*Wool Grower.*

Ashes in Agriculture.

Wood ashes is one of the most important fertilizers. It is easily obtained in any quantity and at little expense. Take them carefully from your hearths, and save them till your corn and potatoes have risen two or three inches from the ground, and then take a basket on your arm, and from it take a small handful of ashes and cast it at the root of your plants, and hoe them soon, so as to cover the ashes.

Ashes contain all the inorganic substance of the wood or plants which are consumed; part of these are soluble and part insoluble. But the soluble substance mixed with water will dissolve the insoluble. Thus, dissolved potash will dissolve silica, and prepare it for glazing the stalks of cane, corn, wheat, &c.

Not a particle of ashes should go to waste. Leached ashes has parted with most of its potash, but it still retains its phosphoric acid and most of its lime.

Ashes neutralize acids in the soil; they warm cold, mossy, wet places; they are very destructive to insects; they assist to break down and dissolve the coarse fibres and stalks in compost heaps; render hard, clayey soils open, loamy and fertile.

The potash, so material to most crops, can be obtained here only from ashes. In granite regions, potash is obtained from the dissolution of the feldspar, but we have none in this region of country.

Wheat contains a large proportion of potash. Fifty-nine per cent. of the ash of corn is carbonate of potash, one-half the earthy part of Irish potatoes is pure potash.

Save your ashes, therefore, as carefully as you do your five and ten cent pieces, apply them to your crops with care, and you will find them of a rich deep green color, while growing, and heavy with nutriment at harvest.—*Ancient City.*

Rattlesnakes—Remedy for their Bite.

Robert W. Kennicott writes to the *Prairie Farmer* of Rattlesnakes as follows:

The Rattlesnake was for a time our national emblem, and it is to be regretted that it was soon thrown aside for the bald eagle. For despite the horror in which it is held, the reptile is by far the nobler animal of the two. He is no impotent and cowardly robber, like our emblematic bird—makes no unprovoked attacks—and always sounds his warning rattle, a sure precursor of the deadly blow that follows.

It is doubtful whether any of the popular remedies for serpent bites are of positive avail, except, perhaps, the internal use of stimulants. Probably the best way of treating a bite would be immediate excision, if practicable, as deep as the fang entered, the application of cupping glasses, or sucking with the mouth. A pressure over the wound would also be beneficial, by retarding absorption. To be of any use, however, these measures must be taken instantly. Dr. Brainard has discovered an antidote which is efficient when it can be used. It is the injection of a solution of Iodine, (ten grains to the ounce) into the cellular tissue of the part bitten.

It might be as well to mention here, that the only poisonous snakes in the United States are those composing the family *Crotalida*, which are the rattlesnakes, moccasins, and copperheads. The moccasins are confined to the Southern States. The copperheads have a wider range, but are now, fortunately, no where abundant.

NICE JELLY OR SPONGE CAKE.—A lady writer in the *Ohio Cultivator*,—"Sun Bonnet" gives the following recipe as one suitable for either jelly or plain cake: One tea cup of sugar, three eggs well beaten to a foam, one teaspoonful of cream tartar, and half teaspoonful soda. This will make paste enough for two baking plates full, for jelly cake, or one plain cake, which should, of course, be made thicker. For jelly cake, bake thin on plates, and while the cake is hot, spread the jelly over it, and then roll the cake into a kind of cylindrical coil. When wanted for use, cut it across, in slices. You will find this a quick made and palatable jelly cake. If you use this recipe for plain cake, add such spices as you like best, to the above. This

is particularly convenient for people who cannot obtain milk at all times, for making up pastry.

Bots in Horses.

Bots originate from the larva of the gad fly, which being deposited on the sides and fore extremities of the horse in the shape of *nits*, are licked off by the tongue of the horse, and thus pass into the stomach, and finally assume the form of a full grown *bot*, and when capable of exercising an independent life, they leave the stomach, *their natural habitation*, by the alimentary passage and rectum, burrow into the earth and there undergo a sort of metamorphosis, acquiring wings, and in their turn deposit *nits*, and thus perpetuate the species.

They seldom do any harm, and while in the stomach they cannot produce pain, as is generally supposed, because they are located on the cuticular division, a portion of the stomach as insensible as the lining membrane of the fowl's gizzard, and if ever found to have burrowed through the walls of the stomach into the abdominal cavity, they are there from the force of circumstances, occurring in the death of the horse, from peculiar causes, or from drenching the animal with strong medicine or poison.

If a horse happens to have a sudden attack of colic, or any other acute disease, and should turn his head towards the side, expressive of the pains and agony experienced, many people jump at the conclusion, that the horse is afflicted with bots, and all the "*Know-somethings*" seem to favor the opinion, and will scarcely believe otherwise; but this results from that backward mode of reasoning, that compels us to look upon the error, rather than embrace the light of science. The horse may be destroyed by powerful medicines, but the *bot* being the monarch of his own domicile, the stomach, can refuse the dose you offer him.

The best way to rid the horse of bots, is to turn him into a pasture in the spring, at which time the bot comes to maturity, and will then vacate his stronghold. Bots cannot be killed by poisons, for they will live and grow fat in turpentine, and even in some of the mineral acids, so that it is folly to attempt their expulsion.

All animals as well as man, are more or less pestered with various kinds of parasites, and

they seldom do harm. The pig is often infested with animalculæ, so that its body is surcharged with the same, and this gives to pork that peculiar appearance known as measles.—*Dr. Dadd.*

Valuable Recipes.

WASHING WINDOWS.—A correspondent of the American Agriculturist, gives the following improved mode of washing windows; which although not wholly new to us, may be valuable to many of our readers: "The nicest article for washing windows is deerskin, as no particles come off to adhere to the glass and make it look as if washed with feathers. There is no need of anything larger than a hand-basin for washing windows. The great splashing some people make in the exercise of their art is entirely useless, and is moreover deleterious.—When the water is permitted to run down in great quantities upon the glass, it dissolves the putty and soon loosens the panes from their setting, and also strains the glass. Two pieces of nice wash leather and a bowl of suds, are all that are necessary. Wipe the glass first with the wet cloth or leather, and after it has become dry, rub it with a clean cloth, and it will look clear, and far more so than if rinsed in a dozen pails of water."

Guano for Insects.

A correspondent of the Horticulturist says: "Some time last summer, while budding some young peaches, I found that ants had taken possession of some ten feet in one row. They very earnestly resisted my attempts to inoculate the tree, inflicting many unpleasant wounds on my hands and arms. In order to disperse the warlike little nation, I sprinkled near a pint of fine guano along the little ridges. This threw them into immediate consternation. I noticed little collections of winged ants huddled close together, and seeming to be quiet, while those without wings ran about in great agitation. The following day not a single insect could be found where the day previous they appeared to be innumerable."

Guano is also said to be a remedy for the striped bug, when put on a cucumber hill, taking care not to sprinkle it upon the leaves.

How to Keep Harness in Order.

Observing the good condition and fine appearance of the harness of Ald. Baker, proprietor of the most extensive livery establishment in Rochester, we requested him to impart to us, for publication, the *modus operandi* by which so desirable an object was achieved. In compliance therewith, he stated the course adopted as the best and most economical, after twenty years' experience in a business which required considerable attention to tackling apparatus. His process of oiling and washing harness is substantially as follows:

Take Neats Foot Oil, and Ivory or Patent Black—the latter well pulverized, or to be made so before using. Mix thoroughly—adding the black until the oil is well colored, or quite black. In cool weather the oil should be warmed somewhat, before mixture—only what the leather will readily absorb, unless the harness is very dry, in which case a heavier coating may be necessary. After the harness is dry—which will be in from two hours to half or a whole day, depending upon the weather and previous condition of the leather—wash thoroughly with soap suds. In making the suds use *good Castile soap and cold rain-water*. (Warm water should never be used on harness leather.) Apply the suds with a sponge. Rub off with buckskin. This will give your harness a nice, glossy surface, and the leather will retain a good color and continue pliable for months. If it becomes soiled with mud or sweat, application of soap and water as above directed, (without oiling,) will be sufficient to give it a bright appearance.

Two applications of this oil and black mixture a year, (or once every six months,) will be sufficient to keep harness, as ordinarily used, in good order. It may be necessary for livery men, and others who use harness constantly, to apply the oil oftener—but in most cases two oilings a year, and washing with suds when soiled, will keep a harness in good trim for sight and service. This process will pay a large dividend in extra service and durability,—to say nothing of improved appearance.

Ald. B. assures us that the same, or a very similar, application is just the thing for carriage tops which are made of *top-leather*. The only difference in treatment is, that less oil should be used, or rather a lighter coating ap-

plied—and it should be washed off *before drying in*, top-leather being thin and much more penetrable than harness. Of course this mixture would not answer for enameled leather, of which some carriage tops are constructed.—*Rural New Yorker*.

Charcoal as a Fertilizer.

There is too much reason to suppose that *mankind are making some great mistakes*.—Death and disease, wide spread, furnish the evidence. We are not respectful enough to Innipotence. We do not pay sufficient regard to the Divine arrangements. Our *forests*, for instance, are considered the great enemy of civilization and settlement, the *pest* that the pioneer has for years to contend with, and accordingly they are *dismissed* with as little ceremony as possible. A sounder *theology* would teach us that God does not make blunders of that sort.

So important a feature as our forests, must have an important agency in the world's affairs. Among the diversified uses to which they may be applied, there is one which has by no means received the attention it deserves. I refer to *charcoal as a fertilizer*. I have used it with very beneficent results upon nearly all kinds of crops. Last winter I mixed it with my barn-yard manure at regular intervals, and where I applied it to my corn crop the result is very marked indeed. A great number of persons have seen the corn, and *without exception*, so far as I know, pronounce it the best they have seen. It was pretty well hoed and *cultivated*. Portions of the field not so manured are far inferior.

Two or three years ago, I applied charcoal dust from a coal pit bottom to young apple trees, mixing a bushel of the dust with the top soil and filling the hole with the mixture. The trees so managed have outstripped all others in the orchard; the foliage is a dark green, and the trees look every way much better than others that had as good treatment in all respects except charcoal.

I have no doubt that the free use of charcoal would correct many of the numerous maladies to which animals and vegetables are now subject. I believe it the *great medicine of the soil*. Powerful in itself, it is an important auxiliary, if not entirely indispensable, to other fertilizers.

yond any available substance it is effectual
"fix" those gaseous materials that poison
 the air, but are the life of plants.

It is greatly to be deprecated, that Americans,
 without half cultivating their *cleared* land, are
 separately bent upon sweeping off the timber
 from the remainder. I would say to all who
 have timber that can be spared for the purpose,
convert it into charcoal. If called upon to tell
 us we are to get our fertilizers in future, I
 could answer through the agency of charcoal.
 Let every "*sink* of iniquity" be strewn with

H. T. H.

Rural New Yorker.

From the New England Farmer.

Winter Wheat—Chess Grass.

MR. EDITOR:—Yourself and your readers may
 think I have exhausted my subject long ago,
 but I wish you to understand, I am a martyr
 to the belief that *wheat is a legitimate crop of*
no England. My own experience, and my
 correspondents from your region, confirm me
 in all I have said and written upon the subject.
 It would really seem a work of supererogation,
 for any one, to advise a farmer to raise his bread.
 I ought to know it, from promptings of self-
 interest. Certainly, the products of his farm
 are the bulwarks of his independence. The
 blacksmith should shoe his own horse, and
 the cordwainer should shoe his own children,
 for they are often found barefooted. There is
 an inaptitude to realize *home wants.* It is not

What a relief it must be to the farmer, to go
 to his granary and measure out his wheat for
 a mill, instead of going to "the store" and
 paying out \$12 cash for a barrel of flour. What
 an improvident thing is all this, while God has
 given him spring and winter grains, commanding
 him to "till the ground," with the sure
 promise of "seed time and harvest." Who will
 deny the hardihood to doubt?

The time for sowing winter wheat is nearly
 past. Be sure not to pass the middle of
 September; if put in the first week, so much
 the better. Worn-out mowing lands, and old
 pastures over-run with low laurel, (killamb,)
 rhododendron, thistles, moss, &c., where fifty acres
 scarcely keep a cow; wall off five acres,
 and pastures are generally good soil and stony,
 it will make fatlings of five cows; first,

put in wheat, then laid down to a pasture. No
 soil so good as inverted sod for wheat; no plow
 so good as the double Eagle, which leaves the
 furrow so pulverized and broken, that the grain
 is buried deep enough to escape winter-kill, if
 sown on the furrow, using the cultivator or a
 loaded harrow.

Again, I have planted wheat from one to six
 inches deep. At six inches, it came up, but
 was feeble; at two, three and four inches, it
 headed out finely. If sowed early and put in
 two or three inches, (on deep plowing,) it will
 scarcely ever winter-kill on descending lands.

Sow 1 1-2 bushels to the acre; soak twelve
 hours in a weak salt pickle, and rake it in dry
 ashes. Ashes spread in the spring have a fine
 effect on it. What is gained in the autumn
 growth, is so much accomplished for the next
 spring. Root, and strength of blade is secured
 by early sowing.

I learn that chess grass has troubled you.—
 It must have been by carelessness in seeding.
 It accumulates wonderfully. It properly may
 be called the "tares" among the wheat. The
 remedy is, *not to sow it*, and if it appears, pass
 through the grain and *pluck it up*; it resem-
 bles a tuft of oats. We hope to be enlightened
 upon this chess grass by some of your readers.
 It seems to be wedded to winter wheat, as if by
 matrimonial alliance.

Again permit me to say, that twenty-five per
 cent. of your unprofitable pasture lands put
 into wheat, would produce grain enough to
 bread the State of Massachusetts. Laid down
 to a pasture again with rich feed, the cow re-
 turns ten dollars extra in milk, butter and
 cheese, the season, and adds to her own value
 and all other animals \$5 to \$10 each, showing
 the difference between poor and good feed.—
 Why so much neglect of the *pasture*, while the
scaffold is an object of such solicitude. The
 pasture should make the beef and growth of
 the young cattle; then why is it not the farm-
 er's important revenue?

While the allies are farming out the destruc-
 tion of Sebastopol with an open waste-gate of
 blood and treasure, the New England farmer
 may be more honorably and profitably engaged
 in subduing his tough old pasture lands, which
 will give him pleasure and revenue in the end.

II. POOR.

Be as good a farmer as any man.

From the New-England Farmer.

Seeding down to Grass with Turnips.

MR. EDITOR:—As it is now settled beyond a doubt that we shall get a light crop of hay, I propose to my brother farmers a way to supply the deficiency, in part, that is not generally practiced, and is, withal, cheap, which is an important consideration, in these times. Now for the way: take a piece of most land that needs seeding to grass, obtain Ruggles, Nourse, Mason & Co.'s Eagle No. 1 plow, (or any other good pattern, same size,) and gauge it to run 5 1-2 to 6 inches in depth and turn flat. After plowing what you wish, or have manure to dress, mark off with plow or chain into square rods, and spread twenty-seven ox loads (six squares to a load goes 162 rods) of compost to the acre, two loads of which should be equal to one of best barn-yard manure, and with harrow cultivator mix it thoroughly with the up-turned sod. To every acre of land sow one peck of herds-grass, one bushel of red-top and two ounces of flat turnip seed, and mix all thoroughly together before sowing; after which roll or brush the seed in. For the last five years I have plowed with a small plow from 5 1-2 to six inches in depth, with two horses or one pair of cattle alone, instead of four cattle, and a great plow running nine to ten inches, and a driver, &c. My grass seed comes up quick, holds in longer, and I obtain a greater quantity of hay than I did upon land of same quality, with more manure and more labor, expense and trouble, in preparing the same for seed.

This, I know, is not the theory of most *writing* farmers, was not the theory of my earlier efforts at farming, but is the result of a practical demonstration of its working, so far as my land is concerned.

The land prepared as above, if sown before the 10th of next month, will yield from 75 to 125 bushels of turnips to the acre, sufficient to pay all expense, and as it is no injury to the grass that is to come after, it is surprising that they are not more generally cultivated.

H.

CONCORD, July 28, 1855.

DURATION OF VEGETABLE LIFE.—Lord Lindsay states, that in the course of his wanderings amid the pyramids of Egypt, he stumbled on a

mummy, proved by its hieroglyphics to be at least 2,000 years of age. In examining the mummy after it was unwrapped, he found in one of its closed hands a tuberous or bulbous root. He was interested in the question how long vegetable life could last, and he therefore took that tuberous root from the mummy's hand, planted it in a sunny soil, allowed the rains and dews of heaven to descend upon it, and in the course of a few weeks, to his astonishment and joy, the root burst forth and bloomed into a beautiful dahlia.—*Farmer's Magazine*.

Who after this will credit Mexico with being the birthplace of Dahlias.—*Working Farmer*.

RASPBERRY vinegar for the sick may be made by steeping fresh gathered fruit in vinegar—three quarts of fruit to one of vinegar; after steeping three days, strain and simmer gently with one pound of loaf sugar to every pint of juice and vinegar. When cold, bottle and cork very securely. Or, to a pint of fresh raspberry juice allow one pound of loaf sugar powdered, boil together three-quarters of an hour after actual boiling. Then pour off and mix with an equal quantity of distilled vinegar, and bottle. A large table spoonful of this in a glass of water is a most refreshing drink in fevers, and is particularly useful in complaints of the chest; a substitute may be made by dissolving raspberry jam, straining the juice and mixing with an equal quantity of the best vinegar.—*Lady's Book*.

TEA CAKE.—Rub into a quart of dried flour of the finest kind, a quarter of a pound of butter; then beat up two eggs with two table spoonfuls of washed brewer's or unwashed distiller's yeast; pour this liquid mixture into the centre of the flour, and add a pint of warm milk as you mix it; beat it up with the hand until it comes off without sticking; set it to rise before the fire, having covered it with a cloth, after it has remained there an hour, make it up into good sized cakes, an inch thick; set them in tin plates to rise before the fire during ten minutes, then bake them in a slow oven. These cakes may be split, toasted and buttered after they are cold.

Read this number of the Cultivator.

Corn-Carrying on the Russian Steppes.

In order to judge at what cost the most important of those exports are thus brought, and in order to enable an inquirer to predict with any approach to certainty what could be done under the pressure of the most extraordinary temptation from without, let us leave the sharp bones, deep mud, or clouds of dust of Odessa, and examine the traets along which those long lines of bullock wagons come creaking from the more northerly directions. I have said that a vast belt of Steppe girdles this coast. We are upon a Steppe. The prevailing color, as far as the eye can reach over the immense plain, is a parched brown. The intense heat and drought have reduced the Steppe to this condition, and beyond the horizon line, and away, verst upon verst, is the same dreary looking, apparently waste expanse. Not that it is all flat—hills, barren and rugged, diversify the line, and add to its difficulties, in dry weather considerably, in wet incalculably. For look at the ground on which you stand. You are on one of the roads, as they are termed. Elsewhere, a road, good or bad, means something which has been *made*—a line, upon which has been gathered material for binding and claspings, and below which there is some kind of draining; good or good, the road is, as compared with the adjacent land, dry, compact and elastic. Dismiss all such ideas from your mind, or rather drag your limbs for an hour behind that corn-wagon, and such ideas will disappear of themselves. Dead and helpless seems that wretched track, creaking and drawing over which comes the bullock-wagon—all wood, and built precisely as wagons were built a thousand years ago. The driver sits in front, occasionally lashing the gray bullocks more by way of form than with any idea of hastening them, and his lassy heard hangs down over a species of center, whence arise fumes of an unsavory kind. But it is not in luxury, or in imitation of his eastern neighbors, that the peasant keeps this air-breathing vessel under his nose—the contents are an abominable mixture for greasing the wheels of his wagon, and by which you may trace it through many a yard of tainted air. Why he has placed the reeking vessel between his legs I know not, unless it be to remind himself more forcibly of the necessity of a operation, without the incessant performance

of which his clumsily built cart would be on fire in four places at once. Contrast this wretched machine with the well contrived, iron-mounted cart of the German colonist, a few miles hence. But on goes the wagoner, jolting and creaking along the unhelpful soil, and singing some of those old airs in which, rude as they are, there is some melody, or saying prayers to one or other of the multifarious national saints. On he goes, and so he and his predecessors have gone since corn was grown in Russia. Ricketty carts, knotted rope harness, drowsy bullock, wretched roads—so crawls the loaf towards the Englishman's table.—*Shirley Brooks, a Year in Russia.*

A New Preserve.

A correspondent sends us the following: "I have lately been very busy making a new kind of preserve, which, I may say, is quite a discovery, to me at least, and which promises to insure me a plentiful supply of good, wholesome jam for my family during the winter, at a price below the usual cost of preserves. I was, the other day, making some ordinary apple jam, and before finishing it, I put in some blackberry juice, in order to give it a little color, and I was surprised at finding how much the preserve was improved by the addition; so much so, that it might be mistaken for damson jam. As you will see by the following proportions, the cost must be very small, wherever apples and blackberries are to be got. I put two quarts of the juice of blackberries—that is, I bring the berries up to a simmer for five minutes, and then strain them through a coarse cloth—and about six pounds' weight of cut up apples, and one pound of crushed lump-sugar, and stew it up in the usual way, till the apples are softened down, and the mass becomes of the usual thickness. It is wholesome and good, and I thought that what was within any one's reach ought to be known.—*Godey's Lady's Book.*

MILDEW stains are very difficult to remove from linen. The most effectual way is to rub soap on the spots, then chalk, and bleach the garment in the hot sun.

It is a noble species of revenge to have the power of retaliation and not to exercise it.

Flour from Sprouted Wheat.

The extensive misfortune which has overtaken our wheat crop, by the germination of the grain, renders it quite certain that much of our bread and pastry for the year to come must be made from the flour of sprouted wheat. Under these circumstances, it becomes a question of vital importance, first, how we can determine whether or not we are purchasing an inferior article of flour; and secondly, whether such inferior article when purchased is deleterious to health. In England, where the atmosphere is humid, and bright, clear weather for harvesting so precarious, grown wheat is no uncommon thing; and besides, the imports of Continental grain heretofore made from the Danubian provinces and the coast of the Black Sea, is not unfrequently so damaged and sprouted by the heatings and casualties of the voyage, as to render it ultimately an inferior grain.—It is transported on the rivers from the interior of the country to the sea coast in open boats, exposed to all the changes of the weather, and by the time it reaches the shipping ports, is not unfrequently so grown and matted on the surface of the cargo, as to require breaking up with sharp instruments. Of course, in such cases, the superficial portions of the cargo are entirely worthless for human food; and the remainder cannot be otherwise than much deteriorated.

In our country, however, through the favorable influences of a clear sky and an unclouded sun, the harvest is usually gathered with no damage from excess of moisture, and the owner of broad acres of golden wheat slashes it down with the utmost confidence and freedom from fear of any such calamity. The question with him is, at what precise moment his own convenience and the perfect state of the grain will render it desirable to stack or house; and not, as in some other countries, when will it by possibility answer to secure, leaning at the same time to the doubtful side of its fitness, rather than to leave it another moment to the risks and casualties of foul weather in the field.

But the present season with us has been extraordinary. No degree of vigilance, activity, or foresight could have secured our grain; for the rains came on just at that crisis which rendered the farmer utterly unable to prevent the

calamity. But little of the earlier grain which had been cut was cured, and the remainder standing in the field had advanced just so far in the process of ripening as to render it peculiarly susceptible to the influences of germination. The consequence is, both the harvested grain and that standing in the field have sprouted day by day, while the owners stood by with heavy hearts, alike powerless to avert or to overcome the misfortune. But it is upon us, and now what its consequences to health and comfort are to be is a matter of absorbing interest to nearly all classes of community.

A number of experienced millers and forwarders of this city, who have for years been engaged in the trade in this garden of the world for prime wheat and flour, assure the writer that unless the grain is mildewed or damaged otherwise than simply by germination, the flour produced therefrom is just as white and just as fair, in appearance to the eye, as though it had been manufactured out of the most perfect grain. There is a loss of from 10 to 15 lbs. of flour to the barrel, that is to say, sprouted wheat sufficient to make a barrel of flour, would have produced, if the grain had been perfect, 10 or 15 lbs. over that amount; so that if the miller could sell the product at the same price, he could not afford to pay as much for sprouted as for unsprouted wheat.—But he cannot sell it for so much, unless he practices a deception upon the purchaser, such as no reputable dealer is willing to do. Instances more than one are known to us of flour manufacturers who called themselves reputable, and whose brand both in New York and Boston, was known on change to be unsurpassed, have worked up poor wheat into so called "Extra Genesee;" but the barrels were branded with an unknown, fictitious, or irresponsible name. The miller would no more have put his own brand on such an article, than he would have sunk his fortune in the bottom of the lake.

One safeguard, then, against a purchase of inferior for first class flour is to obtain a well known and responsible brand, such an one as may be depended upon; for the manufacturer knows whether or not he is working up perfect wheat, and can brand it accordingly. The flour of grown wheat is deficient in gluten, which in the process of germination has, to a

certain extent, undergone a chemical change and disappeared. It assumes a new form under the name of *diastase*—possessing new properties, and is endowed with new functions.—It dissolves in tepid water, and at a temperature of 120 deg. to 140 deg. Fahrenheit, it converts the starch of the flour into grape sugar. Hence arises the peculiar but not unpleasant sweet taste of bread made from such flour.—If, therefore, the flour be analyzed, a deficiency of gluten will be observed, and its absence will indicate at once an imperfect article. The amount of gluten in good flour is about ten per cent.

But the best test of the flour yet known is in the making of bread. Under the ordinary process of sponging and raising the dough of flour manufactured from sprouted wheat, the bubbles of carbonic acid generated by the fermentation break through the sponge and escape, causing the paste to sink into a heavy mass. The bread when baked is not unpalatable, indeed many people prefer its taste to that made from the best flour; and probably the great majority of consumers would relish it as well if the product could be made equally as light.

Aside from the difficulty which the digestive organs have to encounter in a mass of clammy food, there is no positive unhealthiness connected with the use of this kind of flour. It may not be quite so well adapted to the production of muscular fibre, since the gluten of the pure wheat is one of the best vegetable productions for this purpose known; but among our people, where so much animal food is consumed, this deficiency is abundantly obviated. The resulting products of sprouted grain, viz., *diastase*, gum, grape sugar, &c., are all nutritious, even medicinal; and the consumer can eat his bread without fear of any ill consequences. Judicious management in the household, and experience in the cooking, can partially obviate the defects, such as they are of this kind of flour; and while we are perfectly certain of its health and strength-giving properties, an abundance even of this kind of food is sufficient cause for thanksgiving and gratitude to God.—*Cor. of an Exchange.*



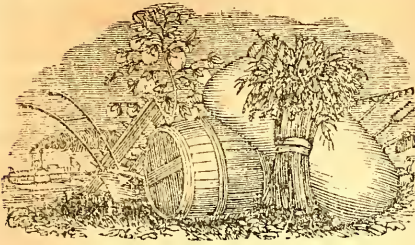
Chew a little parsley after eating onions, and it will take away the offensive smell.

Toads---Cheese---Potato Rot.

The toad having become quite a favorite of mine, partly on account of its bright eyes, but more on account of its usefulness to mankind, I have therefore noticed, with regret, that they have greatly diminished in numbers, for the last ten or twelve years, in New Haven and vicinity; indeed, they seemed to be almost exterminated. A few days ago, I was conversing with an intelligent farmer upon the subject.—He said that at or near the time the potato rot made its appearance, the toads disappeared; that last year, potatoes were not affected by the rot, and toads were more numerous; and he infers from that circumstance, that both may yet be restored to their former position. Upon inquiry, I find that others have observed the same facts. Now, the questions are, has it been so generally? And what relation do they bear to each other? To me, the only idea suggested, is, that the potato rot may be occasioned by an insect, and *that insect* is poisonous in the stomach of a toad.

CHEESE MAKING.—A few months ago, I visited a lady friend in the country; her table was continually supplied with most delicious cheese, of her own making. I asked, as a particular favor, that she would communicate to me her peculiar method of making it, and wherein she differed from others. She replied that she followed the method she had been taught generally, prepared the rennet in the same way, but felt sure that she had discovered the reason why cheeses were strong, both to the taste and smell, which consists in the single circumstance of putting the curd to press, *warm*. She did not use any artificial means to cool the curd, but after it had been chopped and scalded, allowed it to remain spread upon the cloth until it was as cool as the surrounding atmosphere, and thus put it to press.

There is a great deal of probability in the above statement, for I have frequently noticed that some cheeses from the same dairy would be strong and offensive, and others mild and agreeable, which may be owing to the circumstance of the dairy-woman getting her cheeses to press early some days, and being hindered others, until the curd had time to cool. It may be well for dairy-women to try the experiment so as to ascertain the fact.—*N. E. Farmer.*



The Carolina Cultivator.

RALEIGH, SEPT., 1855.

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Honor your Profession.

Farmers and planters are too apt to forget that their occupation is a respectable profession of which they have reason to be proud.—To arouse a true professional spirit is one of the legitimate objects of an agricultural literature, and mindful of our calling, we would again call upon the citizens of North Carolina who are engaged in this noble art, to arouse from their lethargy, and enter heart and hand into the cause of agricultural improvement.—Other States have long ago done so. North and South and West of us, the people are moving forward in the path of experiment and progress, and it is full time that we too should manifest some general popular interest in the same great cause.

We inhabit a country which overcropping and bad management have deeply injured.—There must be a radical change in our course, or this deterioration will go on. A proper professional spirit and a little united action among the friends of improvement will, in a few years, restore us to our proper place among the great agricultural communities of the Union.

Setting Posts.

Experience has, we believe, well established the fact that inverted posts last longer in the ground than those set in the natural position. The *American Agriculturist*, admits the truth of the thing, but questions the common theory on which it is accounted for. The objection is that the absorption of water, which is supposed to be prevented by the inversion, is not a cause of decay, which is the effect of atmospheric influence. We are inclined however to think that a wet log, on or near the surface of the ground, will rot sooner than a dry one, and this is due to the combined action of air, moisture, and heat. Timber completely buried in a cold, wet soil, is often preserved for a long time, because its pores are all occupied with water, and air cannot reach it. But in a situation where the water is easily converted into vapor, and heat and air can reach it, decay is invariably accelerated.

BROOM CORN.—In this region we devote nearly all our time and labor to heavy ordinary crops, and are apt to overlook the importance of secondary articles. Broom corn is one of these, which many of our Southern farmers would find it profitable to raise, because the tops can be readily converted into brooms, with the aid of a little simple machinery and the negro hands on rainy days, and the fodder and seed are both very valuable as food for cattle. The average yield is said to be about one hundred brooms per acre. The inverted sod of an old meadow is a soil well suited to its cultivation. The seed is moreover excellent food for fowls.

LIEBIG.—This eminent writer on Agricultural Chemistry, has produced a new work on the relations of that science to agriculture as an art. The public will look for it with much interest, especially as it contains a reply to certain criticisms on his former speculations by an English experimenter.

GATES.—Small gates can be made to shut themselves very readily by nailing a thick piece of *india-rubber* from the gate to the post, like a third hinge. When the gate is opened, the elastic substance causes it to close.

Antiseptic Plant.

The "Country Gentleman" speaks very favorably of *Gas Tar* as a paint to preserve timber. From the nature of the substance we are inclined to think it possesses this valuable property in a high degree. The paper referred to says:

The preservation of wood is a subject of great and increasing importance. In this country and in Europe, patent after patent has been taken out for various processes of accomplishing this object. Metallic salts are generally employed, and afford, unquestionably, the means of increasing to a great degree the durability of timber. The high price seems to be the chief objection to their use, and especially to the use of corrosive sublimate.

To exclude the oxygen of the atmosphere is the first thing to be secured—decomposition cannot take place unless oxygen be present in some form or other. The albuminous matter of the sap, too, is a great cause of decay, and the more so, if in a moist state. It acts precisely as yeast in the fermentation of bread. We boil yeast, its fermenting power is destroyed. In steaming wood we coagulate the albumen (white egg) of the sap, and thus, to a certain extent, lessen its liability to fermentation or decay. The exclusion of the atmosphere and water, and the coagulation of the albuminous matters of the sap, or reformed portions of the tree, are the two great points to be secured in the preservation of wood,—and, we may add, of almost every vegetable or animal substance.

The various metallic or mineral paints secure to a certain extent the former object, and a solution of a metallic sulphate the latter; and we would advocate the use of both articles to a much greater extent than is now practiced by most farmers. We hope to live to see the time when every wooden implement on the farm shall receive a good coat of paint every year.—which a practice *will pay*, now that good timber is getting scarcer and higher every year.

There is a substance, however, that to a certain extent, at least contains, in itself, both these qualities. *Gas tar* will coagulate albumen, and exclude the air moisture. It is cheap and easily supplied; why is it not more generally and bountifully used? In England, hedges take the place of our not very picturesque Virginian fences, and the home-steads of brick or stone, but the extent to which gas tar is used on the doors of buildings, gates, &c., affords convincing evidence that, were board fences used, as with them they would be preserved, if not ornamented with a good coat of this odoriferous paint. We do not expect to have seen it used for this purpose, in this country, except on the magnificent farm of James S. Swarth, Esq., of Genesee, N. Y., where it has been employed for many years in painting board fences, and proves to all that its advocates claim.

The art of preserving timber and wooden implements from decay is one of the most important in the whole range of domestic economy. Little valuable knowledge on this subject has yet been acquired. It is a field of investigation which, to be explored, requires a long series of patient experiment. Time alone can demonstrate the preserving power of any composition. The article from which we have taken the foregoing extract, concludes as follows:

Is prejudice or ignorance the cause of the general neglect of gas tar as a paint and as a preventive of decay? The experience of those who have used gas tar on posts in the ground is, so far as we know, without exception, in favor of gas tar. We have met with one gentleman who thought that, while gas tar retarded the decay of timber in the ground, it accelerated its decay above the ground. We cannot think that there is any foundation for this opinion; if there is, we should be pleased to hear from those who are competent from experience to speak on the subject. We have many such among our readers. Will they not favor us with their experience in the use of gas tar?

Fencing.

In the June number of *The Farmer and Planter*, we find copied from the *Winnsboro' Register* an article on the cost of fencing on Southern plantations, which suggests some important reflections to the reader. After advertising to the practice so common in this region of devoting spare time to clearing "new grounds" and making rails for their enclosure, and suggesting that the time and labor so employed would be more economically consumed in collecting manure, the writer makes the following estimates of the cost of our common rail fence:

We will select a square field of 36 acres, 6 on either side. The length of a fence to enclose such a field would be 5,040 feet, or nearly one mile. Now a rail fence seven rails high (which is too low to be certain protection) will average about one rail to the foot, hence it will require 5,040 rails to build the fence.—A hand that will maul 125 rails one day with another, is worth 75 cents a day, finding himself. It will require him 40 days work to maul the rails, or an expense of \$30. The rails, if worth anything should sell for at least \$2.50 per hundred, for \$126 for the 5,040. Hauling the rails and building the fence, we suppose, would be worth \$20. Hence, the entire cost of cutting the timber, mauling the rails, and finishing the fence be \$176. We consider this estimate a fair one, or believe the fence the most expensive that can be built."

The writer here makes a calculation of the relative costs of the worm post and board fence, and shows, with considerable force, that the latter is the cheaper plan. After this he continues.

The estimates here given are apparently very fair. A field of 36 acres is larger than the average, and of course requires a smaller number of rails to enclose it. It must be obvious, therefore, that fencing "new grounds" is one of the heaviest expenses the planter incurs, and that keeping old fences in repair is a severe tax upon the industry of the farmer, which a free range for stock cannot repay. The fence laws in our country should be modified.

The day is approaching when enlightened public opinion will require new and better legislation for the protection of the farming interest. As the country fills up, and the amount of waste lands is diminished, it will become evident that it is both unwise and unjust to require the owner of a plantation to keep his neighbor's stock out of his premises. The boot is on the wrong leg, and this is a prolific cause of misunderstanding and ill feeling in every community. It should not always be so. The difficulty may be endured for some time longer, but it is certain to work its own cure in the end.

On Rearing Rabbits.

As some of our readers may have a fancy for rearing pets, we insert the following communication which we find in "The Country Gentleman" for June 21. It may throw some light upon the mode of breeding and preserving the Madagascar Rabbit—an animal of interesting habits, and delicate flesh:

EDITORS COUNTY GENTLEMAN—I was considerably surprised by Mr. Ramsey's account of his experience in rearing Lop-eared Rabbits, as my own was so entirely different. In the spring of 1854, my stock consisted of a single pair. The buck (from England) had been on hand more than a year. The doe, direct from Madagascar, and less than a year old. I state this to show that they had not been hardened to the climate through successive generations.

The first summer they ate no oats or any dry food, but plenty of *every* sort of green. They were allowed to be upon the ground a good deal. When so managed they do well without dry food. When shut up close I give "a medium sized cabbage leaf or its equivalent in any other green food," and a gill of oats twice a day; dry food is then indispensable.

My rabbit house is 15 by 5 feet, covered, containing only eight hutchs, with an open picketed yard, 15 by 7 in front. In this yard all the young rabbits run as soon as they are weaned.

My buck was kept through two winters in an open hutch, and often allowed to run on the snow. In the summer he was tied to a stake with a collar round his neck, and ate as much grass as he wanted, but was always put under cover in a storm.

I have found dampness, and exposure to cold winds and draughts, very injurious to the young, and to the old in a certain degree, although I have lost no old ones from that cause. As to warmth, my rabbits put on naturally a double coating of fur, and pay no regard to cold, (without dampness,) even when the mercury sinks to 25 degrees below zero, and they are obliged to eat their oats with a thick frost on their whiskers.

I have found it inexpedient to begin in this climate, and without artificial warmth or special protection, to breed earlier in the spring than the first of May or later in the fall than the first of October.

The following incident may interest breeders.—About a month ago, finding one of my does disposed to try an experiment, I allowed her to carry it through. She dug a burrow in the yard, and made her nest in it. On the morning of the 17th of May, no entrance to the burrow was visible. After some search I discovered it, and on opening it found five young in good condition. In about two weeks and a half, they came out strong and healthy, decidedly more vigorous in fact than those born in a hutch at the same time. While they were in the burrow, the mother visited them only by night, covering them close before morning, and stamping down and smoothing the earth, so as to conceal the entrance.

My experience, therefore, by no means shows the necessity of artificial warmth, or of avoiding green food. I find them fond of clover, dandelions, plantain and other "weeds," on which they thrive when they can have plenty of air and exercise. And under the management, they have flourished, the progeny, (of which I have about thirty,) being finer animals than the parents.

W. C. TRACY.

Windsor, Vt.

SUMMER SNOWBALLS.—Simmer half a pound of rice until it is tender, then strain it. Take five or six apples, of middling size, pare them and take out the core with a small knife or apple scoop, but do not cut them into sections. Into the hollow made by cutting out the core put sugar and a little allspice. Divide the rice into a portion for each apple, and tie them separately in a cloth, and boil for an hour. These dumplings, or snowballs, may be served with sweet sauce, or eaten with simple sugar or treacle.

Communications.

For the Carolina Cultivator.

Rotations of Crops—No. 2.

MR. EDITOR:

In pursuance of the design announced in my last communication, I proceed without further preface to consider the subject of the rotation of crops.

Farmers have long been aware of the fact that if any given vegetable production—with perhaps two or three exceptions—be cultivated for several successive years, upon the same piece of ground, it will annually deteriorate and eventually become almost worthless. It has also been observed that crops of a different nature may be advantageously sown upon soil that has thus proved itself unfit for the production of the first, and even flourish more vigorously for the change;—and the experience of years has taught them so to vary their crops as to reap the most abundant harvests from their lands. It is customary to account for these facts, by supposing that as each class of vegetables requires peculiar food for its nourishment, which it eagerly appropriates to itself, while it rejects every thing else, it must consequently, in process of time, consume all the food peculiar to it, and thus leave the soil unfit to sustain itself, while it may sustain other vegetables that require the food which it has rejected.

This is a popular, and a plausible solution of the problem, but though in part correct, for various reasons that I shall presently adduce, it will be found manifestly insufficient.

Though it is true, that each class of vegetables requires its own appropriate food to give it strength and vigor, it has not the power wholly to reject that which is useless or hurtful, for a plant may be poisoned by its food, as easily as a man; on the above hypothesis, the proper nourishment might be constantly supplied, so that the same crop might be perpetuated upon the same soil for an indefinite period, but though the abundant application of suitable manures may and does modify and prolong the power of a soil to nourish a given crop, every farmer knows that it is not of itself sufficient. It is necessary to change the

crops in rich, as well as meagre soils, though less frequently in the former case, than in the latter.

Another argument against this opinion, may be drawn from the enormous growth, and the venerable antiquity of our boundless forests.—For hundreds, and in some well attested instances for thousands of years, they have been thrusting their roots downwards, holding the earth in a firm embrace, and spreading out their branches into the air,—putting on their annual covering of living foliage, no less rich in verdure, variety and beauty now, than in the spring time of their existence. We would naturally suppose that an exhausted soil would soon give evident tokens of inability to supply the enormous drafts that the annual support of such stupendous growths must make upon it,—if the hypothesis that we are considering be true;—yet these forests have not exhausted the soil on which they grow, of its nutritious qualities, although in return for its lavish expenditure, nothing has been given back to enrich it, save a meagre top dressing of dried and decomposed leaves, that have been scattered about by autumnal winds.

Perhaps, the fact is not generally known, that it is as important to change the kind of cultivated trees that grow upon a particular soil, as of grain,—particularly if they are planted near together. A peach orchard, for example would thrive more vigorously, to be frequently changed, than to remain permanently upon the same spot. The same is true of apple trees, which would be benefitted by the same treatment though they do not require to be changed so frequently, inasmuch as they are longer lived, and are more remote from each others' influence. I do not, of course, mean by this that a tree, in the midst of its growth and strength, should be transplanted, in order to change its soil, and promote its prosperity,—(though I have successfully done so in some isolated cases, when I desired to save some choice varieties of fruit trees, that seemed about to die)—but that when it dies, another of the same sort should not be planted in its place.

Nature wonderfully provides for this rotation, in the trees of the forest. It has probably not escaped the observation of most of your readers—and filled them with astonishment too—that if a forest of one kind of tree,

say the *oak*, that has flourished for uncounted ages, be entirely cut off, and its roots destroyed, another forest will in due time spring up, of very different trees,—perhaps of pines, none of which had been known to grow upon the spot before, although the acorns of a hundred summers lie thickly scattered around upon the ground, not one of them will vegetate; they seem denied a dwelling place on the spot of their nativity, and are obliged to yield the precedence to these upstarts of a new race. When, however, in succeeding ages, after the storms and the 'sunshine of a thousand years shall have sighed, and played among their branches, these pines shall in turn be swept away,—the forgotten acorn will again start into being, and the majestic oak once more assert its dominion over its ancient domain.

The explanation of these phenomena which seem so mysterious, is identical with that of the rotation of crops, and will help us hereafter to illustrate the principles, which may be laid down. We will therefore proceed at once, to a consideration of the true causes that operate in producing a necessity for a change of crops, as they have been developed by the investigations of Botanists. In doing this, it will aid our comprehension of the subject; first to state such physiological facts respecting the internal structure and growth of plants, as will enable us to understand the manner in which they are supplied with nourishment and its effect upon them.

Every living seed contains the embryo of a new plant, sometimes visible to the naked eye, which is shielded by appropriate coverings, and furnished with a magazine of provisions, ready to afford nourishment to the young plant whenever circumstances are favorable for its development.

Most seeds retain their vital principle for many years, even for centuries, if they are secluded entirely from the influence of sun, air and moisture. This is supposed to be in consequence of the quantity of carbon that they contain,—a substance that we all know to be highly autiputrescent in its qualities. Some seeds however are so deficient in this ingredient, that they decay, almost as soon as they come to maturity, and must therefore be sown again immediately after they have ripened. There are plants now growing in the gardens of the King of Naples, which were raised from

seeds found buried beneath the ruins of Herculaneum, where they had been entombed for two thousand years.

There must be a combination of favorable circumstances, operating together, in order to excite into action, the vital principle of a seed. In the first place moisture is absolutely essential to the germination of a seed,—for while it is germinating it absorbs a large amount of water, which is necessary to soften and dissolve the hardened substance (or cotyledons as they are termed) of the seed, that is to vivify and support the embryo plant. If there is a deficiency of moisture, there will be too great a preponderance of carbon in the seed to allow of germination.

But moisture is not all that is requisite; air must have ready access to the incipient plant, in order that the oxygen of the atmosphere may unite with the carbon and carry it off in the form of carbonic acid gas. Pure oxygen alone would accomplish this object, but like a man living in an atmosphere of exhilarating gas, the plant would live too fast, and soon perish from exhaustion.

A certain degree of light and heat are also necessary for germination, though much less is requisite than is generally supposed. If there is too much light it prevents the oxygen from uniting with the carbon, of which the seed must rid itself before it can spring into life,—and if there is too much heat arising either from the direct rays of the sun, or from the fermentation of manures, it either dries up all the moisture or destroys the delicate texture of the embryo. Hence arises the necessity of slightly covering the germinating seed with earth.

It sometimes happens, however, that all these circumstances may be favorable,—moisture, air, light and heat may all combine to bring out the latent energies of the seed, but without success, or if the plant should germinate, it struggles through a brief period of sickly existence, and comes to an untimely end. There seems in this case to be no sufficient reason for this result, for the same seed when removed to other localities will flourish vigorously, and the baffled cultivator is at a loss to know why his labor has been bestowed in vain. The cause lies hid, deep in the soil itself; it is because the soil is not adapted to the growth of that particular, kind of plant, either on account of its chemical constituents, some of which may not

be congenial to the plant, or because it has become unfitted to discharge its duties, by having previously borne successive crops of the same plant, and there is the foundation of the necessity for a rotation of crops.

In order to understand more readily the reasons why the soil thus becomes unfitted for its peculiar work, let us now devote a few moments to a consideration of the internal structure of plants, and their manner of growth. As soon as the process of germination has fairly commenced, there shoot up above the ground, a beautiful plumule—how beautiful no one knows who has not examined it, by the aid of a microscope,—which contains the elements of the future culm or shrub or tree; and at the same time, little rootlets, stream downwards into the earth, to seek for food and moisture. It must be remembered that roots grow only at their extremities, and draw their nourishment from the soil wholly through little spongioles or mouths, which are situated at these extremities;—the body of the root serves no other purpose than to convey the food sucked up by the spongioles to the stem, and to preserve the plant in an erect position. Their forms vary according to the nature of the plant to which they are to act as purveyors, and to the character of the ground in which they are to grow; and upon their form, depends very much the influence which they exert upon the soil, while under cultivation.

The stem of every plant consist of a collection of minute vessels or tubes, which serve the same purpose in the economy of the plant as the arteries and veins of the human system.—There are several distinct sets of these tubes performing distinct offices,—some in the bark, some in the newly formed wood, and others in the body of the plant. There is a striking analogy, between the means and operations which nature adopts in nourishing the human system, and restoring its exhausted and decayed parts, and the process by which a plant is brought to perfection, that it may be interesting briefly to trace. As soon as suitable food is introduced to the animal stomach, it undergoes a chemical process by which it is converted into a white fluid of sufficient tenuity to pass through the various vessels of the system, though in this state it is wholly unfit for nourishment. It then passes into a portion of the heart, whence it is projected by suitable contrivances, so that

it shall come in contact with the air that has been inhaled into the lungs, by which another chemical change is effected, altering its color to a crimson red, and fitting it to nourish and sustain the body. From the lungs it returns to another portion of the heart, as a sort of reservoir, whence it is sent forth in the form of blood through various arterial ramifications, to the remotest extremities, giving health, vigor and strength, to the whole system.

The food of a plant consists of water holding in solution more or less of the earthy, or alkaline ingredients of which the soil is composed,—such as lime, sile, soda, potash, magnesia &c. As it is already in a fluid state, and can freely pass through the vessels of the plant, it needs no chemical process analogous to that which is necessary to convert our food into chyme and chyle. In this state it is sucked up by the spongioles, or mouths of the rootlets and conveyed upwards by means of the tubular vessels already mentioned, through the body of the plant, or more strictly speaking, through that part of the body called the new wood, which lies immediately beneath the bark. Most people erroneously suppose that it is the sap that nourishes the plant; there is in truth no more nourishment in the sap, than in the chyle of the animal system, before it is converted into blood. They are in their respective states precisely analogous.

The sap passes unchanged through the whole plant, until it reaches the leaves, when it undergoes a process precisely similar, as it regards its effects, to that which the blood undergoes, when it is brought in contact with the lungs, though somewhat different chemically. Plants, unlike animals, require a large quantity of carbon. Indeed they are almost wholly composed of it, as is evident from the fact that when all the other constituents of wood are driven off by heat, so large a proportionate quantity of charcoal remains, which is almost pure carbon. Now the ascending sap contains a certain portion of carbonic acid gas which has been sucked up from the earth. This gas consists of a carbon of union and oxygen, and it is necessary to get rid of the oxygen, before the carbon is in a fit state to combine with the plant, and become a part of its substance. This operation is effected through the agency of the leaves, which are in fact the lungs of the plant.

As soon as the sap enters the leaves and is

spread out thinly over their extended surfaces, the action of the sun's rays decomposes the carbonic acid gas, imprisoned within them, allowing the oxygen to escape into the atmosphere, through the pores on the under side of the leaf, while the carbon remains in a semi-fluid state, to perform important functions, in the sustenance and growth of the plant. The importance of the healthy action of leaves, for the vigorous growth and even existence of a plant, may be readily illustrated by varnishing the surfaces of its leaves, so as to close their pores; it will assuredly languish and die, as if you should withhold all nourishment and moisture from it. The same effect will ultimately be produced by keeping the plant, wholly stripped of its leaves. Hence it is evident that the common practice of cutting off the tops and lopping off the large proportion of the branches of trees, when they are to be transplanted, is erroneous, as they are thereby deprived in a great measure of the very apparatus of life. If plants that are thus transplanted live, they are obliged to spend most of their energies for sometime in reproducing the means of their future growth, much to the detriment of the *body* of the tree, which in the mean time must remain stationery, as regards its growth. I believe the true policy is, to lopp off no more branches, than is absolutely necessary to preserve the symmetry of the tree and prevent the wind from blowing it over, before it has become firmly rooted in the ground. But we are digressing.

Like the blood of the animal system, after it has passed through the lungs, the sap, which now receives the name of cambium is fitted by the operation just described, to be distributed by appropriate vessels throughout the plant, and supply the wants of its various parts. It is carried downwards, partly through the vessels of the inner bark, and partly through the young wood, depositing its nutritious matter as it descends, which hardening, becomes the wood of that year's growth. If the bark be stripped off from a green tree, the thickening cambium may be distinctly perceived, being the soft pulpy substance that surrounds the body of the tree and adheres also to the inner coating of the bark.

R. L. C.

Bloomfield, N. J.

(To be continued.)

For the Carolina Cultivator.

The Emigrant.

No. II.

In our first *article*, we stated, that Sammy Johnson, the Carolina Emigrant, to Texas, had reached the new country, purchased a tract of land, on credit, built a log-cabin, cleared ten acres of land, and planted a crop of corn and cotton, by the 1st of May, 1850.

His new-ground-soil being loose, porous and trashy, and the weather dry, the seed came up slowly, and his stand of corn and cotton was not good. For the same reasons, they did not grow much until about the 1st June. The warm, moist weather of June, however, compensated for lost time in his crop getting a start to grow off, by forcing the corn up like mutton-cane, and the cotton like pokestalks.

Sammy had never seen crops, and weeds, and grass, and bushes grow so fast before. For a while, he was bewildered: he did not know which to work first, and how to work, the corn and cotton. Johnny Woods was called in consultation, and advised the corn to be thinned out to a stand, and then chopped, and plowed.

Sammy, wife, (a model wife, was she), and little boy, soon pulled out the superfluous stalks, and chopped down the grass, weeds and sprouts. Sally and little Sam, then commenced chopping cotton, whilst Sammy plowed the corn, which was done by running three scooter furrows between the rows of corn. This done, he plowed the cotton in the same manner, as fast as it was chopped through by Sally and Sam. The crop was worked over thus the 1st time by the 1st July. The garden was not neglected. His industrious wife and son had "tended" it. The "long legged-collards," the cucumbers, squashes, cymblins, snaps, tomatoes, and the garden vegetables, grew amazingly fast, and they were well pleased with the garden and crop. Sammy's mind felt much relieved, and he and Johnny Woods amused themselves for three days, shooting squirrels, hares, coons, turkeys and deer. They feasted on vegetables and fresh meat until, the whole family became sick with colic, diarrhoea and fever. Several days were lost from work by sickness, and the crop needed chopping over again. This was done, by the 1st of August, and the corn laid-by. The cotton was laid-by by the 15th of August, and the prospect for a

good crop of corn, and cotton, was very flattering. Indeed, Sammy had never before, seen such tall corn and cotton, in all Carolina.

He had discovered with sorrow, and much inconvenience, that in moving to Texas, he had neglected to carry with him, many little things that were necessary for the comfort of his family. He purchased a few of them at the nearest store,—James Daniels', but, had denied himself the rest of them, until he laid his crop by, and saw what the prospect would be. Sally urged him "since the crop is made, and is so fine, and she has worked so hard," to buy the articles desired. She importunes him for one thing and another, until Sammy's credit begins to fail, and he pledges his word, and honor, and crop, for the payment of his account at Mr. James Daniels' store.

Occasional attacks of colic, diarrhoea and chills and fever, interrupting field labor, the crop was not gathered until Christmas. When gathered, they found it turned out much shorter than they had anticipated. The corn made only 15, instead of 25 bushels, per acre, and the cotton only about 800, instead of 1,400 lbs. per acre, as Squire Jones said it would make.

The birds, squirrels, coons and his neighbours hogs and cattle assisted him to gather the corn; and the rains, winds, fallen timber and the rot injured the cotton, seriously, before they were gathered and penned. He had not time to build a corn crib, and a cotton house. He finds the corn very light, much shuck, and much worm eaten and rotten. The cotton is beautiful and picked with care. The cotton remained in the rail pen until February, when it was hauled to Mr. James Daniels' Gin, and began for the 10th. Mr. Daniel assisted Sammy to bale it; furnished the Bagging, Rope and Twine, which was charged in his account, against the cotton. It netted three—400 lbs. bales, after paying toll, for ginning.

Sammy lived 50 miles from the Trinity river, which is not navigable, some years, before March, as high up as the landing Sammy could have hauled to, besides, he had no groceries, no money and all of his debts were due the 1st January, and duns are troublesome. James Daniel had the cotton in possession, and a strong claim against it for the Bagging and Rope, and a store account. He offered to take it at 10 cents per lbs., and credit his account, and let him have groceries and goods another

year on credit. Johnny Woods had a claim against it for articles furnished Sammy; and Squire Jones' 1st instalment on the land is due. Johnny and the Squire both offered to take the cotton at 9 1-2 cents per lb.

Sammy was in a dilemma. What to do he could not tell. In a fit of despair, he exclaims "he am broke; old homestead in Carolina gone; money all gone, and he in the wilds of Texas!" I wish I'd never seen, or heard of Texas?" He accepts of James Daniels' offer, because he must live and take care of himself and other people must do the same. When Johnny and the Squire hears of the trade they are disappointed, and appears a little cool towards Sammy and talk about their rights and claims and the law, which alarms Sammy much, and makes him wish again, that he was back in old Carolina, amongst his old tried friends. Sally cries, and wishes to move back to old Carolina, and live and die amongst her relatives and friends. But that is impossible, and they must submit to circumstances and the will of Providence, and hope for better days.

July, 1855.

N. T. S.

(To be continued.)

Miscellaneous.

Of the Manures from Domestic Animals and their Preservation.

The manure of various domestic animals is, in this country, most commonly employed as a fertilizer, all other manures being used in comparatively small quantities; and yet even three are seldom preserved and applied as carefully as they might, or ought to be.

The principal varieties are those of the ox, the cow, the hog, the horse, and the sheep. Of these, that of the horse is most valuable in its fresh state: it contains much nitrogen, but is very liable to lose by fermentation. That of the hog comes next. That of the cow is placed at the bottom of the list. This is because the enriching substance of her food goes principally to the formation of milk, the manure being thereby rendered poorer.

The manure of all these animals is far richer than the food given them because it contains much more nitrogen. This is for the

reason that a large part of the carbon and oxygen of the food are consumed in the lungs and blood generally, for the purpose of keeping up the heat of the body. They are given off from the lungs, and also by perspiration and evaporation through the pores of the skin, in the forms of carbonic acid and water.

From animals fed upon rich food, the manure is much more powerful than when it is poor. In England, for instance, where they fatten cattle largely on oil-cake, it is calculated that the increased value of the manure repays all of the outlay. This is the reason why human ordure is better than manure from any of the animals mentioned above, the food of man being rich and various.

All these kinds of manure should be carefully collected preserved, both as to their liquid and solid parts. The liquid part or urine is particularly rich in the phosphates and in nitrogen. This part is by very many farmers permitted in a great degree to run away or evaporate. Some farmyards are contrived so as to throw the water off entirely, others convey it through a small ditch upon the nearest field. The liquid manure which might have fertilized several acres in the course of the season, is thus concentrated upon one small spot, and the consequence is a vegetation so rank as to be of very little use. Spots of this kind may be seen in the neighborhood of many farm-yards, where the grass grows up so heavy that it falls down and rots at the bottom, and has to be cut some weeks before haying time, producing strong coarse hay that cattle will scarcely touch.

The proper way to save this liquid is to have a tank or hole, into which all the drainings of the yard may be conducted. If left here long, this liquid begins to ferment, and to lose nitrogen in the form of ammonia, which it will be remembered is a compound of nitrogen and hydrogen. To remedy this, a little sulphuric acid, or a few pounds of plaster, may be occasionally thrown in. The sulphuric acid will unite with the ammonia, and form sulphate of ammonia, which will remain unchanged, not being liable to evaporate. Others prefer to mix sufficient peat, ashes, sawdust, or fine charcoal, with the liquid in tank, to soak it all up; others still pump it out and pour it upon a compost heap. One point is to be noticed in the

management of a tank. Only the water which naturally drains from the stables and yards should be allowed to enter it: all that falls from the eaves of the buildings should be discharged elsewhere. Regulated in this way, the tank will seldom overflow, and the manure collected in it will be of the most valuable and powerful description. The tank may be made of stone, brick, or wood, as is most convenient, and need cost but very little.

While the liquid manure is actually in many cases almost entirely lost, the solid part is often allowed to drain and bleach, until nearly every thing soluble has washed away; or is exposed in heaps to ferment, without any covering. In such a case ammonia is always formed and given off: it may often be perceived by the smell, particularly in horse manure. The fact may also be shown, by dipping a feather in muriatic acid and waving it over the heap. If ammonia in any quantity is escaping, white fumes will be visible about the feather, caused by the formation of muriate of ammonia. A teacher can exemplify this by holding a feather, dipped in the same way, over an ammonia bottle. This escape of so valuable a substance may be in a great measure prevented by shovelling earth over the surface of the heap, to a depth of two or three inches. If this does not arrest it entirely, sprinkle a few handfuls of plaster which will as before unite with the ammonia, and form sulphate ammonia.

Manures containing nitrogen in large quantity are so exceedingly valuable, because this gas is required to form gluten, and bodies of that class, in the plant; this is particularly so in the seed, and sometimes also in the fruit. Plants can easily obtain an abundance of carbon, oxygen, and hydrogen, from the air, the soil, and manures. Not so with nitrogen. They cannot get it from the air: and hence manures which contain much of it, produce such a marked effect. Not that it is more *necessary* than the other organic bodies, the more scarce; at least in a form available for plants. The same reasoning applies to phosphoric acid. It is not more necessary than the other inorganic ingredients; but still is more valuable, because more uncommon in the soil and in manures.

In all places where manure is protected from the sun, and from much washing by rain, its value is greatly increased.

Here manure particularly should not be left exposed at all: it begins to heat and to lose nitrogen almost immediately, as may be perceived by the smell. It should be mixed with other manures, or covered by some absorbent earth, as soon as possible. Almost every one who enters a stable in the morning, where there are many horses, must perceive the strong smell of ammonia that fills the place. I have seen in some stables, little pans containing plaster of Paris or sulphuric, for the purpose of absorbing these fumes, and forming sulphate of ammonia. The liquid which runs from barnyards and from manure heaps, is shown by analysis to consist of the most fertilizing substances; and it is calculated that where this is all allowed to wash away, as is the case in many instances, the manure is often reduced nearly one-half in its value. I have seen yards where it was almost worthless, owing to long exposure.

The farmers of this country need awakening upon the subject of carefully preserving their common manures. In Flanders, where everything of the kind is saved with the greatest care, the liquid manure of a single cow for a year is valued at \$10; here it is too often allowed to escape entirely. Either they are very foolish, or we are very wasteful.—*Farm Jour.*

A Remedy Against Mildew.

A question was asked some time since by one of our correspondents, whether sulphuret of potash had ever been employed as a remedy against *Mildew*? We cannot say whether it has been so applied in this country, but it has been used in France successfully, and if an acid be added a fine precipitate of sulphur is deposited from the aqueous solution upon the leaves of the Vine or Hop, in a manner which would not be effected by any dredging. It is, in fact, when properly diluted, precisely what is used very frequently for baths in certain cutaneous disorders. In all such applications the main question is how does sulphur act? This is evidently a point of great importance, and from the insolubility of sulphur under ordinary circumstances not very easy of explanation.

We do not profess to be in a condition to answer this satisfactorily, but the observations we have to offer may induce some one to attend

a little more closely to the matter. Sulphur has evidently a very prejudicial effect on fungi, as it has indeed on all organic beings if exposed to it in a proper form and in a sufficient degree of concentration. The use of sulphur in cutaneous disorders whether arising from insect or vegetable parasites; the effect of hyposulphite of soda on the curious vegetable production known by the name of *Sarcina*, from its resemblance to little corded bales, which is so common in cancerous affections of the human stomach; and the destructive power which it has over parasitic moulds are all evidences of this fact. One particular instance may perhaps afford a clue to its action over the latter. It is well known that if a bundle of brimstone matches be burnt in a barrel, the fermentation of wine when placed in that barrel will be arrested. Now the fumes of brimstone consist of sulphurous acid, and as the whole body of the wine placed in the cask is affected, the quantity of the acid which is capable of arresting the growth of the yeast fungus must be almost infinitesimal. Now if the leaves of plants infested with mould are dusted with sulphur, though the sulphur is insoluble in water and may be exposed to ordinary air for a long time without change, it is very possible that the oxygen just separated from the foliage by the action of light in effecting the decomposition of carbonic acid, or arising from other chemical processes taking place within the plant, being in a nascent state, may readily combine with a portion of the sulphur, and thus form sulphurous acid, and still more in the application of a solution of sulphuret of potash with the addition of an acid, where the sulphur is in the act of being eliminated, and can combine at once, under the most favorable circumstances, with the nascent oxygen.

It would be easy for a good chemist to ascertain precisely whether sulphurous acid is really formed under such circumstances, or whether some other combination of sulphur and oxygen is given out, and it would be doing good service to the horticulturist to ascertain the point. Where sulphur is used to combat disease in the human frame, especially when applied inwardly, more than one combination takes place, and a large portion of the substance, when taken in a crude state, passes away unaltered. In its application to the purposes of cultivation it

is likewise a small portion only in all probability which is effectual; and if the action could be precisely ascertained the results might be of great importance, in an economical point of view, where it is used largely, as in Hap gardens.

M. J. B.

Gardeners' Chronicle.

Machine for Shearing Sheep.

The Michigan Farmer, says a machine has been invented by Palmer Lancaster, of Burr Oak, in that state, for shearing sheep, "that it works rapidly, cuts with evenness, never cuts the sheep, nor the wool twice in two."

One of the difficulties we should suppose, in a such a machine would be to induce the sheep to *hold still*, particularly if there was much whizzing of cog and fly wheels, turning of cranks &c.

The article does not state, whether the sheep is put into a hopper, and after a few revolutions, comes out *shorn*, whether it is operated by a crank or lever, horse or man power. There seems no limit to the inventive genius of the country, but we had not looked for such a machine as the above, and feel incredulous till we hear more about it. We have seen an engraving of persons getting shaved by machinery in a barber shop, some fifteen or twenty at a time, and have also heard of a log of wood being thrown into a machine in some of the New England towns, and ready made buckets coming out at the other end. Such cases have been cited in proof that this is a great country. The sheep shearing machine, however appears to be a reality "as letters patent have been granted, and the inventor desires to sell rights." We hope he will come this way, as the old fashioned sheep shears is our only machine for taking the wool off sheep.—*Farm Journal.*

CORN CAKE.—A special premium was awarded to Mrs. Chas. W. Wampole, at the late Exhibition of the Montgomery (Ala.) Agricultural Society, for a corn cake, made after the following recipe:

"Take the whites of eight eggs; one-fourth pound each of corn-starch, flour and butter; half pound sugar; one tea-spoonful of cream tartar; half a tea-spoonful of soda. Flavor with almond to suit the taste."

Drilling Wheat.

As the season for sowing is again at hand, we would urge every farmer, who does not own a wheat drill, to procure one without delay.—Were there not other inducements to do so, the experience of last winter of the advantages of drilling would be conclusive. We heard of many places, and indeed in nearly every neighborhood in this section of the State, there were cases where the drilled wheat stood the winter well, and has since yielded a plentiful harvest, while that sown broadcast, and covered with the harrow, was very much killed out and injured. The reasons in favor of drilling in are, that the wheat is covered deeper, it is dropped and covered with more regularity, and it requires less seed. Pennock's improved grain drill is probably as *perfect* an implement for this purpose as can be devised. It is calculated for wheat, oats and grass seeds, is well made, and at the same time free from all complexity. It can be thrown in and out of gear by a single movement. After experiments for a series of years to adapt it entirely to the wants of the farmers, the Messrs. Pennock, inventors and manufacturers, consider their present drill as combining every thing that can be wanted. The price of the seven tubed drill is \$65; eight tubed, \$70; nine tubed, \$75; ten tubed, \$80. The grass seed sower costs an additional \$10; oats sower, \$5; and the guano attachment, \$15. We give these prices for the information of our friends at a distance who may wish to order.

Song of the Harvesting.

We gather them in—the bright green leaves,
With our scythes and rakes to-day,
And the mow grows big, as the pitcher heaves
His lifts in the swelt'ring bay.
O ho! a field! for the mower's scythe,
Hath a ring as of destiny,
Sweeping the earth of its burthen lithe,
As it sings in wrathful glee.

We gather them in—the nodding plumes
Of the yellow and bended grain,
And the flash of our sickle's light illumines
Our march o'er the vanquished plain.
Anon we come with the steed-drawn car—
The cunning of modern laws,

And the acres stoop to its elanging jar,
As it reeks its hungry jaws.

We gather them in—the mellow fruits
From the shrub, the vine and tree,
With their russet, and golden and purple suits,
To garnish our treasury.
And each had a juicy treasure stored.
All aneath its tainted rind,
To cheer our guests at the social beard,
When we leave our cares behind.

We gather it in—this goodly store,
But not with the miser's gust,
For the Great All Father we adore,
Hath but given it in trust:
And our work of death is but for life,
In the wintry days to come—
Then a blessing upon the Reaper's strife,
And a shout at his harvest Home.

Horticulture.

Culture of Strawberries.

The New York Horticultural Society, at a recent conversational meeting, arrived at the following conclusions in regard to the best method of cultivating strawberries:

The best soil for the strawberry was stated to be a gravelly loam. The land should be well drained, and to every acre apply twenty bushels of unleached ashes, ten bushels of lime, and two or three pounds of salt. The ground should be well broken up, animal manures should be eschewed; leaf is the best, and this should be carefully spaded in. About the first of July is the best time to set out the plants. In doing this, pains should be taken to have them firmly rooted. The roots should be eighteen inches apart.

Sometimes it will be well to allow greater interval, in which case the interstices can be filled up from the growth of the rumors. After setting out the plants, throw on a covering of tan bark an inch or an inch and a half in depth, then water them plentifully, and the moisture will be retained a long time. After cold weather comes on, cover the strawberry beds and the walks with clean straw, throwing over a little bush, or something to keep the straw in its

place. In the spring remove the straw and make use of some fertilizing agent to give the plants vigor, as sulphate of soda, sulphate of ammonia, or nitrate of potash. Keep the roots out, see that the plants are bountifully watered, and let nothing intervene to disturb or retard their growth till you gather the fruit. The beds should be made over as often as every three years.—*Farm Journal.*

Mourning of Plants.

Why quivers the aspen when not a breath disturbs the summer heat? Whilst other trees are enjoying repose, and affording the blessings of shade, it alone knows no rest!

Pride was its bane!

At that dread hour when our Redeemer suffered, the sun and its light, and all nature quailed.

The wild beasts of the forest, cowered in their dens; not a bird twittered; not an insect buzzed or chirped; the voice of the breeze was hushed in the sultry air, and men awaited in alarm the great event.

The trees, shrubs and flowers felt the awfulness of that hour, and sympathized with each other upon it in their own mysterious language.

The lofty cedar of Lebanon (*Pinus Cedrus*) rustled forth a melancholy sound, and clothed its branches in deeper green, in sign of mourning.

"Alas! all is now over!" gently murmured the *Salix Babylonica*, and swept the Euphrates with its mourning branches.

The vine dresser in his vineyard, saw that the vine wept; hence, when its fruit was gathered, he called the produce *Lachramæ Christi*.

A balmy fragrance arose on the Golgotha; the *Hesperis Tristis* (sweet-smelling night-stock) offered it up, to refresh the suffering Son of man.

The *Iris Susiana* said to the cypress, "from this day will I attire myself in a garb of mourning." "And I," replied the cypress, "will henceforth take up my abode among the tombs, in memory of this hour."

A form flitted through the gloom—it was *Ashtaroth*, the angel of death, on his way to the cross; and when a voice was heard to exclaim

—"My God, my God, why hast Thou forsaken me?" every branch, leaf and flower trembled.

The *Populus* alone, a tall, proud tree, stood unmoved on the Golgotha.

"What are thy sufferings to us?" it cried, "we plants need no atonement; we are not fallen!"

But the angel of death who heard this boast, breathed upon the haughty tree, and the unfortunate *Populus* was struck as with a palsy.

Its leaves drooped; never from that moment have its branches found rest; and it is called the *Populus Tremulosa*, or the aspen, to this day.

Study of Flowers.

It is very common with men who think there is nothing rational that is not connected with dollars and cents, to ridicule the study of flowers. "What good can come out of it," they ask. "Will it improve a man's fortune, or advance his interest? Will it render him a shrewder calculator? Will it earn him his bread or make him a fortune?"

They are greatly mistaken who believe that no actual utility, in the common niggardly sense of the term, can be derived from the pursuits of taste. But granting that they will accomplish none of these useful purposes, we would encourage such studies, as tending to fill up many hours of idleness with an interesting and agreeable employment. Every new amusement which can be participated in without danger to the health or the morals, provides an additional means for the moral improvement of society, inasmuch as it serves to divert many minds from pleasures which are liable to be accompanied with vice. Though to a mere plodder in the common business of life it may seem almost ridiculous to be engaged with enthusiasm in naming and preserving a few insignificant wild flowers, yet this very zeal may preserve many a youth from corruption and ruin, whose passions might otherwise lead him to seek the haunts of vice. There are many pursuits which are useful in no other way than by contributing to our pleasures. Let plodding misers and conceited sensualists, ridicule them, because they neither fill one's coffers, nor spread his board—they forget that one distinguishing mark between men and brutes, is, that the latter pursues only the *useful*, while the former are about equally employed in the pursuit of the *fanciful*.—*Mass. Magazine of Horticulture*.

Few are aware how frequently Publishers are compelled to insert among their advertisements, statements which they can neither sanction or believe.

A pleasant exception to this disagreeable necessity are the advertisements of DR. J. C. AYER's Cherry Pectoral and Pills which will be found in our columns. We have published for him before, and always with the feeling that in so doing we in no wise lend ourselves to deceive or mislead the public, for we have had indisputable proof that his words are strictly true, with abundant reason to believe that his medicines will do all they promise and all that can be reasonably expected from any medicine. His Cherry Pectoral is too well known in this community to need any commendation from us, and his Pills we are credibly informed are not inferior to his Pectoral.—*Providence Mirror, R. I.*

Table of Contents.

Antiseptic Plant.....	225
A Remedy Against Mildew.....	223
A new Preserve.....	221
Ashes in Agriculture.....	216
Bots in Horses.....	217
Broom Corn.....	224
Charcoal as a Fertilizer.....	218
Corn Cake.....	224
Corn—Carrying on the Russian Steppes.....	221
Culture of Strawberries.....	235
Duration of Vegetable life.....	220
Drilling Wheat.....	224
Economic Cultivation.....	211
Flour from Sprouted Wheat.....	222
Fencing.....	225
Guano for insects.....	217
Galls on Horses.....	215
Gates.....	224
Honor your Profession.....	224
How to keep Harness in Order.....	218
Liebig.....	224
Marking Geese.....	214
Maize or Indian Corn.....	212
Machine for Shearing Sheep.....	224
Mourning of Plants.....	225
Nice Jelly or Sponge Cake.....	216
On Rearing Rabbits.....	226
Of the Manures from Domestic Animals and their Preservation.....	231
Rattlesnakes—Remedy for their Bite.....	216
Raspberry Vinegar for the sick.....	220
Rotation of Crops.....	227
Song of the Harvesting.....	224
Study of Flowers.....	226
Seeding down to Grass with Turnips.....	220
Swine in New Hampshire.....	214
Setting Posts.....	224
Summer Snowballs.....	226
The Farm Supports All.....	209
To Prevent Bots in Horses.....	210
To Renovate Silk Dresses.....	210
To Divest Calves of Vermin.....	215
Tea Cake.....	220
To remove mildew stains.....	221
Toads—Cheese—Potato Rot.....	223
The Emigrant.....	220
Winter Wheat—Chess Grass.....	219
What Food will produce the most Wool.....	218
Who are the Benefactors of Mankind.....	215
Washing Windows.....	217

TO FARMERS AND ALL OTHERS Interested in Agriculture, HORTICULTURE, &c.

WILL be published, in October, 1855, THE YEAR BOOK OF AGRICULTURE; or The Annual of Agricultural Progress and Discovery, for 1855.

Exhibiting the most important discoveries and improvements in Agricultural Mechanics; Agricultural and Horticultural Botany; Agricultural and Economic Geology; Agricultural Zoology, Meteorology, etc. Together with Statistics of American Growth and Production, A List of Recent Agricultural Publications, Agricultural Patents, with Notes by the Editor, on the Progress of American and Foreign Agriculture, for the year 1855.

BY DAVID A. WELLS, A. M.

Member of the Boston Society of Natural History, formerly Chemist to the Ohio State Board of Agriculture; Editor of the Annual of Scientific Discovery, Familiar Science, &c., &c.

It is evident that a publication of this character, giving a complete and condensed view of the Progress of every Department of Agricultural Science, free from technical and unnecessarily scientific descriptions, and systematically arranged so as to present at one view all recent Agricultural Facts, Discoveries, Theories and Applications, must be a most acceptable volume to every one interested in the Cultivation of the Soil, or the diffusion of Useful Knowledge.

The "Year Book of Agriculture" will be published in a handsome octavo volume, comprising upwards of 300 pages, and will contain an elegant Steel Portraits of a Distinguished Agriculturalist, together with Fine Illustrations of New Agricultural Machines, Stock, Farm, &c., together with a series of

BEAUTIFULLY COLORED ENGRAVINGS.

Although the publication of this work will be attended with very heavy expenses, it will be issued at the low price of \$1.50, thereby enabling every Farmer and Planter to possess a copy.

On the receipt of the published price it will be sent free per mail, to any part of the United States. As the sale will be very large, all orders should be sent in immediately.

A liberal deduction to clubs.

Address, **CHILDS & PETERSON,**
124 Arch St., Philadelphia.

AGENTS wanted to sell the above valuable work.
Sept.—11.

SUPERIOR STOCK FOR SALE.

THE SUBSCRIBER EXPECTING SOON TO remove from the State, offers for sale a number of Pigs of the SUFFOLK and ESSEX breeds. Also some beautiful half breeds of both stocks.

Also, some fine fowls of the Brama Pouter and Shanghai breeds. The white Shanghais he regards as far preferable to all other breeds, having tried, nearly all. Address,

J. R. GARLICK,
Murfreesboro', N. C.

May 1855.

GILBERT'S

PATENT IMPROVED WHEAT FANS.

The Subscriber, successor to McElwaine & Burnett, having located permanently at Henderson for the purpose of Manufacturing the above Fans, is now offering at wholesale and retail Fans on such terms as think will please. I challenge the world to produce

their equal, as many of the best planters having tried them do not hesitate to say that they *can't be beat!*

They will chaff sixty bushels per hour. The very best lumber and materials are used in making these Fans—the irons are all turned and polished smooth, so that they work easier than most Fans—are simple in their construction, but will **CLEAN ALL KINDS OF GRAIN!**

The Hoppers are large and only require the grain to be thrown into them and they feed themselves.

Don't be deceived by appearances. Some Fans are made at Henderson which resemble them, but unless my name is blazoned on them, they are not mine.

Having located a Branch at Graham, Alabama co., he will furnish to the Planters in that and surrounding counties Fans at the same rate, delivered as heretofore from Henderson.

N. B. Every Fan is warranted perfect. Retail price \$30—a liberal discount made to the trade. I will also furnish to order Wheat Drills, Horse Powers, Threshers, Corn Shellers, Stalk Cutters, Chain Pumps, &c., of northern manufacture on the most liberal terms, all of which samples are kept constantly on hand.

I return my thanks to the citizens of Granville and surrounding counties, for the liberal patronage I have heretofore received, and which I shall endeavor to continue to merit.

C. BURNETT.

Henderson, N. C., June 1st, 1855.

4-6t.

TO SOUTHERN AGRICULTURISTS.

An intelligent, steady and practical farmer, who has had 25 years' experience in the most productive wheat and stock regions of Maryland, offers his services as manager on some large estate in the South—he is perfectly familiar with the management of negroes, and can furnish the most ample testimonials of his character from the highest sources in that State. His qualifications as a farmer and stock raiser are such as is rarely to be found any where.

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THE ORANGE IMPROVED STUMP MACHINE.

PATENTED MARCH 6TH, 1855.

FRIENDS OF AGRICULTURAL IMPROVEMENT:—

Having just secured a patent on my IMPROVED STUMP EXTRACTOR, upon the crotch and steel-yard principle, I am free to say that I wish this Machine brought into general use, because I need some compensation for the pains I have taken to bring it to its present state of perfection, and because it is desperately needed—for much beautiful land in many States of the Union, is defaced by odious stumps. This Machine has no rival; its power is very great; its action very rapid, and hence, it may be made to hurl an acre of stumps from their dominion in a very short time.

I manufacture these machines at Orange, Mass., where I hold myself ready to furnish them, when ordered from any part of the country. The price will range from \$125 to \$150, according to extent of chain, and weight of iron. I should add, however, that the Machine is simple in structure, and with the Model I furnish, may be manufactured by any good and intelligent blacksmith.

My title, *Best Improved Patent, good for sixteen years*, covers the nation, and I am ready to sell Rights to towns, counties, and States, at rates altogether reasonable. Please apply at once: my prices shall be low, my terms of payment easy, and if it is wished, I will take real estate or other property in exchange.

Yours very respectfully, **W. W. WILLIS.**
Orange, April 1, 1855.

A few good AGENTS wanted to Exhibit and sell this Machine in different quarters of the Nation

DR. STRONG'S COMPOUND SANATIVE PILLS

These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Scrofula, Salt Rheum, Fevers of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of Piles, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also

DR. STRONG'S PECTORAL STOMACH PILLS

A remedy for Coughs, Colds, Catarrh, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a deranged state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, in weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expectorant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Syrups, Balsams, or Sarsaparillas, that were ever made; and a simple trial of only one box will prove this important truth.

They promote Expectoration, Loosen the Phlegm, and Clear the Lungs and other Secretory Organs, of all morbid matter, and there is not another remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. They Cure Costiveness, produce a good, regular Appetite, and Strengthen the System.

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the *Planter's Almanac* GRATIS, giving full particulars and certificates of cures.

Both kinds of the above-named Pills are for sale in **Every Town and Village in North and South Carolina.**

And at Williams & Haywood, Raleigh, N. C.
May 1855. 3—

TO PLANTERS.

THE UNDERSIGNED HAS BEEN appointed Agent for the sale of "KETTLEWELLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of COTTON and CORN, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to its yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by HENRY NUTT, Agent for the State of North Carolina, at Wilmington. 3—

PURE MERINO SHEEP FOR SALE.

I HAVE A FEW YEARLING RAMS, AND Ewes, from one to three years old, which I will sell. Also three Rams older, and very choice. They can be sent to any part of the country with safety—For prices, &c., apply to T. C. PETERS,
Darren, Genesee Co., N. Y.

May 1855.

tf—

NORTH CAROLINA MUTUAL LIFE INSURANCE Company, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the **MUTUAL PRINCIPLE**, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$30, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 99 days after satisfactory proof is presented.

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Communications should be addressed, (post paid) to
JAMES F. JORDAN, *Secretary*.

NORTH CAROLINA MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

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J. B. G. Roulhac, Raleigh.
Henry D. Turner, do.
J. R. Williams, do.
T. H. Selby, do.
C. W. D. Hutchings, do.
James F. Jordan, do.
James M. Towles, do.
James E. Hoyt, Washington.
Alex. Mitchell, Newbern.
Joshua G. Wright, Wilmington.
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John H. Bryan, <i>Attorney</i> .
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John R. Williams,	} <i>Executive Committee.</i>
T. H. Selby,	
C. W. D. Hutchings,	

This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam

Mills and Turpentine Distilleries,) upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid,
J. C. PARTRIDGE, *Sec'y.*

Raleigh, Jan. 9th, 1855.

ENGLISH CATTLE, SHEEP AND SWINE.

ALSO Mules and Merino Sheep from Spain. Selected and imported on commission to any Atlantic sea port in America, by Thos. Betts & Co., at Liverpool and Herts, England.

Circulars containing the prices of all kinds of English Stock, and the expenses from England to America, including insurance can be received by applying personally or by post to G. M. Miller 81 Maiden Lane, New York City. Agent for

THOS. BETTS & CO.

FARMER'S HALL, RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855.

no. 1—tf.

AYER'S PILLS,

A new and singularly successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fever, Gout, Hu mors, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the hearers all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

DR. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

HON. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINTHROP, Ex-Speaker of the House of Representatives.

ABBOTT LAWRENCE, Minister Plen. to England.

† JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, DR. J. R. CHILTON, Practical Chemist, of New York City, endorsed by

HON. W. L. MARCY, Secretary of State

WM. B. ASHUR, the richest man in America.

S. LELAND & Co., Proprietors of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been used, but evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded not of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should prove as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulæ by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few would be taken if their composition was known! Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge on the subject freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by scientific men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal viscera to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their irregular action to health, and by correcting, wherever they exist, such derangements as are the first origin of disease.

Being sugar wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

Practical and Analytical Chemist.

LOWELL, MASS.

PRICE 25 CENTS PER BOX. FIVE BOXES FOR \$1.

SOLD BY

P. F. Pescud and Williams & Haywood, Raleigh, N. C. March 1-55, 15—y.

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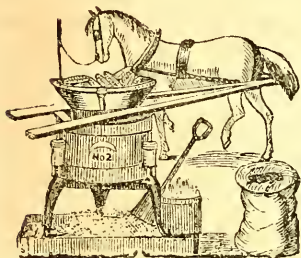
No. 11 WATER-STREET,

NORFOLK, VIRGINIA,

Have the Largest Assortment of Agricultural Implements in the State; they are engaged largely in Manufacturing, and can furnish any variety of Implements at short notice:

SCOTT'S LITTLE GIANT

CORN AND COB CRUSHER,



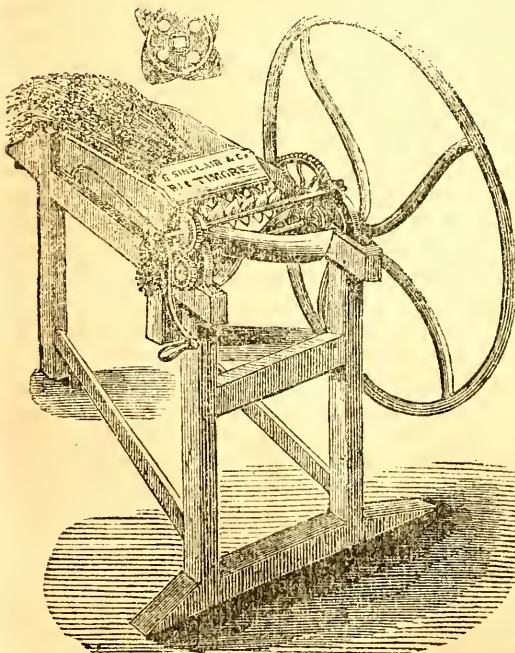
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These Mills are sold at "Farmer's Head-Quarters," Norfolk Virginia, by BORUM & M'CLEAN, at the following prices:

No. 2	Grinds 10 bushels per hour, with one horse, -	\$46 00
" 3	" 15 " " " two " -	57 00
" 4	" 20 " " " two " -	68 00

Two dollars deduction made on each size for Cash, upon delivery of the machine. A full stock of them always on hand, and orders filled promptly.

SCREW PROPELLER STRAW CUTTER.



This is probably as good and strong a Machine for cutting Shucks, Stalks, Oats, Straw, Fodder, etc., as any other Cutter ever made, a great number of them have been sold and they give general satisfaction.

Orders filled at "Farmers Head-Quarters," at Factory prices,

11 inch Cylinder, - \$30 00

Large sizes for horse power, \$38 to \$45

Orders filled promptly, by
BORUM & M'CLEAN,
11 Water-street, Norfolk, Va.

Wheat and Corn Fans.

Montgomery's Celebrated Wheat Fan, \$34

Bamborough's do do do No. 2, 30

No. 1, 32

extra, No. 1, 34

Sinclair's Fan for Corn, Oats, Wheat and

other grain, No. 1, 28

do 2, 33

do 3, 38

Clinton's Small Fans, 13 @ \$20 each.

Giant's Patent Fans, all sizes, from 16 @ \$30 each.

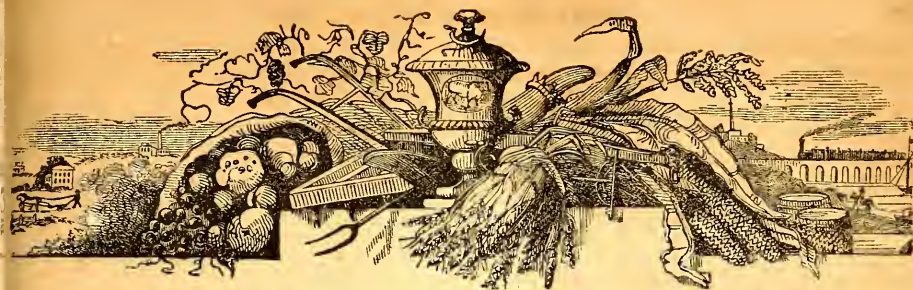
Plows, Harrows, Cultivators, Straw Cutters, Fan Mills, &c., in great variety, made by us in the best manner, and well suited to the wants of Southern Farmers.

Orders for our Catalogue will be mailed, gratis, upon application.

BORUM & M'CLEAN.

Aug. 1855,

Norfolk, Va.



THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

WILLIAM D. COOKE, PUBLISHER.

VOL. 1. RALEIGH, N. C., OCTOBER, 1855. NO. 8.

Miscellaneous.

Hints on Sowing Wheat.

The certainty of the wheat as compared with other staple farm productions; its universal adaptability as an article of food; the safety, ease and cheapness with which it may be transported to any part of the world where needed, and its being pre-eminently a cash-yielding material, all point out this crop as one worthy of the greatest attention of farmers in every section of the country, where its cultivation is not precluded by the circumstances of soil or climate. The uniform high, or at least remunerative prices for several years past, and the probability of a continued European demand, for a year or more after the establishment of peace—an event not prospectively near—are additional considerations which should prompt to sowing a large breadth the present Autumn.—We will therefore, throw out a few hints upon the methods of increasing the amount sown, and process of cultivation.

There are many acres upon every farm that may be sown to wheat, with a prospect of only half a crop—better than to lie in stubble or poor pasture. The opinion that all grass land must be plowed previous to harvest, and lie sometime as Summer-fallow, is erroneous. A meadow or pasture may be turned over in Sep-

Vol. I.—No. 8. A.

tember, and wheat sown directly upon the inverted sod. Such land should be well harrowed after plowing, and if very poor, a light coating of rotten manure or guano be worked into the surface to supply the necessities of the plant until the decay of the underlying sods. Stubble land, whether of oats, wheat or barley, may also be sown profitably, if a coating of manure or guano is applied; and it is even better to obtain a half or two thirds crop, than to let such ground lie idle for a whole year. Those who understand well the philosophy of manuring, find no difficulty in getting remunerative crops of wheat every year from the same field, though a rotation of crops is always advisable, where it can be done without contracting the amount of the more important crop.

SELECTION OF SEED.

This should be attended to before as well as after threshing. The wheat ripening earliest should invariably be saved for seed. The manner of threshing is important. When wheat is crowded through a machine with close setting, sharp teeth, a great number of the kernels are broken, or crushed so as to destroy the germ, though the fracture may not be perceptible to the eye, at least without careful inspection.—We have latterly recommended to place the whole sheaves upon the barn floor, and beat off with the flail the largest and best kernels for seed; and then lay aside the sheaves to be run through a machine afterwards. We have counted from ten to twenty-five in a hundred ker-

nels thus spoiled for seed. Two men will readily beat off thirty to sixty bushels of seed in a day, if the threshing floor is adjacent to the wheat mow, since a very little beating will take out half or more of the grain.

Select the largest, plumpest kernels for seed.

To pass over the generally established principles that "like produces like," there is an important consideration that we have not seen referred to by writers on the selection of various kinds of seed. Every seed contains not only the germ of the future plant, but also a supply of nourishment for the *first wants* of the young shoot. The germ of the wheat seed is very small, and the great bulk of the kernel is composed of what must nourish the germ until it has sent forth roots into the soil and leaves into the air. If now the kernel be small or shriveled, the young shoot will lack for nourishment, will get a poor start and for a long time have but a comparatively feeble growth; while from the full, plump kernel the shoot will derive a full supply of pabulum, will send forth vigorous roots and leaves and will have a much better chance for a rapid after-growth. Three hundred pounds per acre of guano, intimately mingled with the soil, has been found to exert a powerful effect upon the wheat plants, and yet that amount of guano does not furnish to each cubic inch of soil as much nourishment as there is in a single plump kernel of wheat. This reasoning must appear obvious to every one; and to this we may add the fact that, in our experience, as well as from extended observation, we have found the practice of selecting large seed to be highly profitable. Our method has been to run the wheat designed for seed over a coarse screen, which sorted out only about one third of the largest kernels. After pursuing this method for a few years, the general character of the wheat was so much improved that after selecting one-third of the plumpest kernels for seed and home use, what remained still commanded the highest market price. Another advantage of this course is, that we thus get rid of all "foul stuff."

Varieties of seed.—Almost every section of the country has some particular variety of wheat which has been found best adapted to the locality, and no general rule can be given. Let every farmer be sure and get the best, and not sow a poorer variety because he happens to have it. He can usually exchange with a

neighbor, giving wheat good for consumption or market, for that which is more valuable for seed. Better expend a dollar more for good seed than sow poor, when \$10 or \$12 per acre is to be laid out in other expenses of cultivation.—An additional yield of two or three bushels for the same labor in cultivating will well repay the difference between good and bad seed.

From nearly all accounts of the past and present year, the Red Mediterranean wheat has been found the most reliable, and wherever this seed is accessible we advise to procure it for a part or the whole of the next crop.

SOW WHEAT EARLY.

Every year's experience and observation show more and more plainly the importance of sowing wheat early. One half or more of the reports from the wheat crop during two years past contain in substance the following: "Early sown wheat is good, but late sown is Winter-killed," or "injured by the insect." Wheat should get *well rooted* before frosts set in.—The *long* roots will be far less liable to be thrown out by the frost. Nature is a good teacher; as soon as the old crop is ripe the seeds fall to the ground and commence growing again. North of latitude 42° it would be better if every grain of seed wheat were in the ground early in September. From 40° 42°, wheat sowing should be *finished* by the first week in October.

METHOD OF SOWING WHEAT.

Every person raising twenty or thirty acres of wheat can well afford to purchase a seed drill, unless he can join a neighbor in buying one. Some of the advantages of drilling-in wheat instead of sowing broadcast may be summed up as follows:

The seed is put into the ground at a uniform depth the plants come up evenly, grow evenly, and ripen at the same time.

A much smaller quantity of seed is required because no allowance need be made for portions left partially covered, or covered too deeply; nor for a large number of seed falling together, as usually happens in broadcast sowing; nearly half a bushel of seed per acre may thus be saved, which, with the present high price of wheat, would pay the cost of a seed-sower the first year, upon a large farm, or where several small farmers unite in purchasing one.

Where the plants grow at uniform distances

the light and air enter more freely, and a more vigorous growth is secured. Direct experiments have shown that where the heads of wheat stand well apart the kernels upon each head are plumper, and often more than double the number of those upon heads growing closely together.

With the plants at equal distances, the roots occupy the whole soil, and do not interfere with each other, and there is a greater certainty of using up all the fertilizer applied to the ground.

Next to drilling in wheat we recommend plowing it in with shallow furrows. In this method the grain is covered more uniformly with the plow than it would be with a harrow, the plants come up in rows and admit light and air; and as they stand between the small ridges, the soil from these will crumble down with frost, and falling around the roots, will be partially equivalent to hoeing. Of course the ground should not be touched with a harrow, roller or brush after the wheat is plowed in.

MANURES FOR WHEAT.

These must be varied to meet the condition of the soil. Where the ground is cold and wet, and consequently contains undecayed vegetable matter, alkalies, such as newly-slacked lime or unleached ashes, are highly valuable. In soil not abounding already in sulphate of iron or sulphuric acid in some form, plaster of paris is an excellent fertilizer as it—so to speak—catches ammonia which supplies wheat with one of its best stimulants. Barn-yard manures of all kinds are always good. We recommend less rotting or composting than is usually practiced; let the manure, even to long straw, be kept from fermenting, and get it *under* the surface soil, where it will without fail decay gradually and furnish just the nourishment needed. If this is done there will not be a waste of the greater part of the best elements which are usually lost in the rotting process. Clover plowed under when at its full growth, and while still green, is one of the very best fertilizers for wheat,—when clover, or manure, or sod is once plowed under, whether before or after the harvest season, it should never be turned up again. Let the surface be thoroughly pulverized with a heavy, sharp harrow, or with a cultivator, but never use the plow a second time, at least not deeply enough to throw up to the surface

the organic or vegetable substances buried at the first plowing.

Of all "*foreign* manures" yet tried upon wheat, there has none been found so *generally* beneficial as genuine Peruvian guano. Wheat seems to delight especially in ammonia, and guano furnishes this in abundance at the cheapest rate. Much value has been claimed for super-phosphate of lime and other manufactured articles, but the benefit derived from these often lies *more* in the advertisement of the interested manufacturers, than in any observed valuable results. Comparatively good results, have, indeed, been observed, but it is worthy of remark that these have always followed where guano, or some good substitute for it, has been added to the super-phosphate. The safer, cheaper plan for the purchaser is, to go to the fountain head and get the pure, unadulterated guano itself.

MECHANICAL TREATMENT OF SOILS FOR WHEAT.

First of all, after making it dry, let it be stirred deeply; we do not say plowed deeply in the common acceptance of that word, for it is not always advisable to turn up to the surface a great depth of the subsoil. This may be poisonous, or otherwise unfit for direct contact with the young plant. But it should at least be stirred below with a subsoil plow to let in the air and allow water to drain off. If this is done the roots will strike down to a greater depth; they will derive more nourishment, as well as sap with which to appropriate the food collected from the air by the leaves; the frost will be less likely to heave them out; and the roots thus allowed by the deep cultivation to penetrate downwards, will be below the temporary effect of the sun in long drouths or hot weather.

Where under draining is not already done, wheat soil should in all cases be plowed in narrow lands, and the dead furrows between be let deep and well cleaned out, so that no water shall stand in the soil during freezing weather. A single illustration will show the importance of this. Dry or partly dry solid substances like soil, are but comparatively little expanded and contracted by heat and cold, while water expands and contracts about one-eighth of its whole bulk by a change of nine degrees of temperature, (40° to 31°.) Eight measures of water will produce nine measures of ice, and a soil saturated with water will swell and contract in

freezing and thawing just as much as the same bulk of water itself. Now a wet soil by these alternate expansions and contractions, breaks and tears the roots of wheat, and if it is not Winter killed outright, it will be so much injured as to have a sickly, late growth in the Spring a result not found where the soil is free from water during Winter. All Winter crops are in a similar condition. Hence, we repeat, let the best provision possible be made to keep the ground free from water during freezing weather.—*American Agriculturist*.

Great Triumph of American Skill.

The great and final trial of Agricultural Implements gathered at the World's Exhibition of Industry, now in progress in Paris, came off on August 13th, at La Trappes, thirty miles from Paris, upon the farm of Mr. Dailly, Postmaster-General of France. Previous partial trials had awakened such a general interest in the occasion, that Prince Napoleon, and many of the highest officers of State, went out from Paris; while about twenty distinguished Americans, including ex-President Fillmore, Senator Tombs of Georgia, Mr. Corcoran, the Washington Banker, and others equally eminent, were on the ground to cheer on their countrymen, and to rejoice with them in the final result. Various implements were tested, but the great interest of the day was centered in the Threshers and Reapers, especially in the latter.

In the trial of Threshers, which lasted only 30 minutes, six men were set to work with flails, and at the same time the best French, English, and Belgian machines, and Pitt's American Thresher, with the following result:—

Six men with flails,	60 liters of wheat
Pinet's Belgian Thresher,	250 liters "
Dunoir's French Thresher,	250 liters "
Clayton's English Thresher,	410 liters "
Pitt's Am. Thresher,	740 liters "

This is in nearly the ratio of 1—2 1-2—4—7—12 1-8, making the American machine to do the work of 74 men; or of 5 Belgian machines; or of more than three French machines, and nearly double that of the best English machines. The *Moniteur*, the leading Journal of France, says, "the American Thresher gained the honors of the day." * * * "It literally

devoured the sheaves of wheat." * * * "It is frightful to look at," &c.

Seven Reapers—three American, two English, and two French—were entered. Previous trials had scared all others from coming upon the ground.

About an acre was allotted to each machine, and they all started at the tap of the drum.—The poorest American machine finished the plot in a little more than half the time required by the best of the European machines. The time occupied was:

By McCormick's (operated by McKenzie),	10 1-2 minutes.
By Manny's (from Illinois),	16 minutes.
By Hussey's (Wright's improv'm't)	18 minutes.

The European machines came out in from 30 to 90 minutes. No incident could have been more pleasing to Americans than to have seen ex-President Fillmore mounted upon a shock of wheat, the most interested and excited spectator upon the field. It argues well for the future of Agriculture, when our politicians of the highest class enter with so much spirit into occasions like this. We hope to see many such manifestations of interest in farm improvements, during our great annual exhibitions now about to open at home.

The trial of mowers resulted in a similar triumph of American skill. The French machines will henceforth be superseded, and their patents worthless.

In Pianos, the American instruments are also foremost. This circumstance puzzles the French most of all. They were somewhat prepared for being excelled in the heavy agricultural implements, but how the Americans—half-civilized as they esteem us—should successfully compete with more than three hundred fine French pianos, is beyond their comprehension. In their simplicity, they had supposed that they had furnished most of the pianos to this country, and, indeed, all of the good instruments of this kind. Some of our countrymen, and women, too, who have attached so much value to foreign manufactures, will have their obtuse vision sharpened. These results will do more than a thousand tariffs to develop and foster American manufactures.—*Am. Agriculturist*.

Let nothing be wasted in housing the produce of your farms.

Training Horses.

We copy the following from the *London Sporting Magazine*:

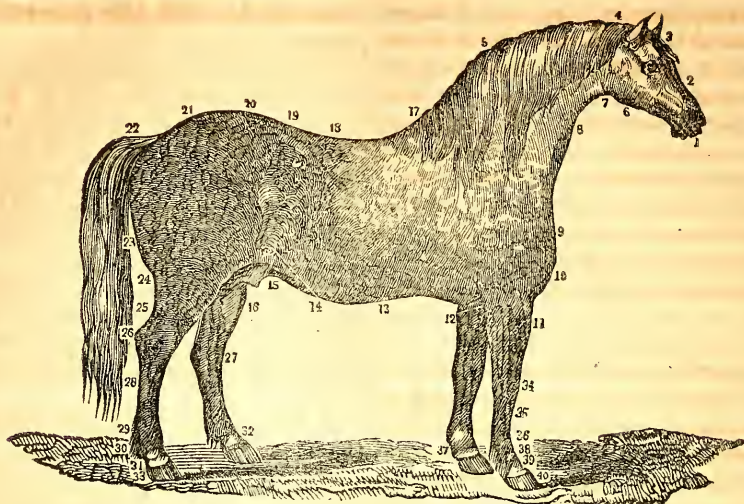
Let it never be forgotten that with beasts, as men, the lesson imparted by kindness is far more readily learned and distinctly remembered than that which is forcibly instilled into a pupil, cowed by severity and confused by fear. Some men are sufficiently fine horsemen and blessed with such nerves, as to be capable of instructing young horses while on their backs, without interfering with their heads, or otherwise withdrawing the attention of the animal from the immediate business in hand; but such riders are indeed uncommon; and therefore it is that I conceive the leading system to be so judicious a method, the beast being left entirely to his own resources, whilst the man's courage and patience run on chance of being overtaxed and failing at the critical moment.

Nothing but practice will make a horse a superior timber-jumper. It is a description of leaping which, more than any other, requires coolness and confidence, for it must be done with energy, but without hurry; and to retain the requisite amount of practice, I conceive a leaping bar to be absolutely necessary. The single bar is only better than none at all; but it is at the double bar that a horse learns to raise himself on his hind legs, and what is termed fling himself in the form which distinguishes all the best timber-jumpers.

The plan I have always adopted myself, and have found successful, has been to enclose a space of some six feet in width, (in fact narrow enough to prevent a horse from wishing to turn round,) and some twenty or twenty-two feet in length, between two strong rails, six feet high in the middle, and sloping gradually down to the two extremities. The upper surface of these rails is made smooth, so that a rein slips easily along them, and the man leading the horse runs outside, where he is in perfect security, and out of the animal's way. In the centre of the lane, so call it, are placed the two leaping-bars, from six to seven feet apart, that being, in my humble opinion, the most effective distance to prevent the scholar from attempting to clear the whole thing at one effort, whilst at the same time it is narrow enough to force him to bend and fling himself to double it cleverly. I generally commence

by laying the bars upon the ground, or rather on the tan or other soft substance, on which all such tuition should take place, and walk the horse backward and forward over them till he ceases to feel any alarm at the novelty of his position. After this, I raise them some six inches from the ground, and so by degrees get them higher, till he finds it less trouble to make a slight spring and cant his hind legs after him than to knock his shins against the unyielding wood in trying to step over. When this is accomplished without touching, I consider the lesson over, and that we have done well for the first day. The great thing is not to disgust the pupil at the commencement of his studies; if we can only make him fond of them our task is easy indeed. When a certain degree of confidence has been acquired, and the horse begins to jump freely and willingly, a stage at which some reach much sooner than others, I begin to instruct in real earnest, putting up the first bar (which I only use to break his stride, and teach him to raise himself on his hind legs, (a foot from the ground, and the second (which represents the fence and requires all his energies) about three or three and a half feet. He comes into the lists staring about him, and would, if a high-couraged horse, perhaps jump the height of a turnpike-gate, without becoming one bit the wiser; but the low bar compels him to look where he is going, and brings him so near the further one that he must draw himself back as he rises, to keep clear of it. This it is which teaches him to jump as timber should be jumped; and when he can do this cleverly at the height of a common table, he is not very far from being perfect. They get on wonderfully when they have once captured the knack; and although it may take weeks to raise the bar to three feet, be not disheartened—a very few lessons will get it up to five.

When the horse has acquired dexterity and confidence, we must vary the performances, placing both bars a good height from the ground, and watching how cleverly he will go in and out without touching; and I think it always advisable, after the first two or three times, to conclude the lesson with a jump at the single bar, which he may be allowed to swing over as fast as he pleases, in order that we may not too much cramp his efforts by continued practice in doubling. Most horses will



PORTRAIT OF AN ENGLISH CART HORSE,

WITH TERMS DENOTING THE EXTERNAL PARTS OF THE HORSE.

1 Muzzle.	11 Arm.	21 Croup.	31 Small Pastern.
2 Race.	12 Elbow.	22 Dock.	32 Coronet.
3 Forehead.	13 Girth.	23 Quarter.	33 Hoof.
4 Poll.	14 Flank.	24 Thigh or Gaskin.	34 Knee.
5 Crest.	15 Sheath.	25 Hamstring.	35 Cannon.
6 Jowl.	16 Stifles.	26 Point of Hock.	36 Fetlock.
7 Gullet.	17 Withers.	27 Ham or Hock.	37 Heel.
8 Windpipe.	18 Back.	28 Cannon.	38 Large Pastern.
9 Point of Shoulder.	19 Loins.	29 Fetlock.	39 Small Pastern.
10 Breast or Bosom.	20 Hip.	30 Large Pastern.	40 Hoof.

be found to get quite fond of the amusement, and eager for the exertion; nor would any one believe, who has not witnessed it, the height over which they will bound with the greatest apparent ease; five feet and upwards being within the compass of any animal whose hind-quarters are qualified for the hunting field.

Although I would deprecate all attempts to "get them down," I must insist upon the bars being fixed so strong that they will turn a horse completely over rather than give way. I am one of those that think the fewer falls horses have, the greater is their courage likely to be; but in cases of extreme idleness or awkwardness, it is far better that the animal should sustain a tumble which he will not soon forget, than that he should acquire the idea, so dangerous to his rider, that timber may be rattled with impunity; and upon the same principle a young horse, till he is perfect, should never be ridden at a weak place. The smaller

the fence the better; but "little and good" should be the motto with the trio. Above all, make the lesson short, and send him home directly when he has done what you require of him. By this means he takes a pleasure and pride in his performance, and acquires a docility and readiness which all the severity of a Lycurgus could never inculcate.

Any man with good hands, mild temper, and a pair of spurs, can do all that is necessary in the open fields; but to teach effectually, it is absolutely essentially to consider the temper, disposition and previous habits of the pupil. If he is an eager, impetuous horse, take him out by himself, and get thoroughly acquainted with him before you bring him into company; when there, let him go in front, and at ease, till he loses his restlessness, and can be coaxed into dropping back to his companions. If he has a heavy boring mouth, ride him in a severe bit with light hand, till he finds it far

pleasanter to champ and play with it, than to inflict pain on himself by hanging on the instrument; if so sensitive that he will scarcely bear his mouth to be touched, put on thick smooth snaffles and running martingales, till he is no longer afraid to ask for that support to which he is entitled at his rider's hands.—In short, in these days of "bridles" there is no excuse for any horse being improperly bitted; and when we have got the key to his mouth, it is our own fault if we put him out of tune.

The above engraving portrays correctly an English cart-horse, to which was awarded the highest prize of the Royal Agricultural Society of England. The horses of this breed are considered the best for heavy labor in the world, and are perfect models of the best animals for the dray or the cart. Several stallions of this breed have been imported and have produced excellent team and strong carriage horses from our ordinary sized mares.

The terms used in describing the external parts of a horse, are important to all who may own an animal of this kind; we have, therefore, procured the above cut at considerable expense, and given a correct illustration of all the external parts of a horse, as defined by those learned in the science of breeding and training horses in England and America.

Water Rams—Cement Pipes.

The following communication, which we find in the *Country Gentleman*, is one of those practical things, coming home to a majority of farmers, that possesses a real value:

As I very frequently receive queries from all parts of the country, respecting cement pipe and cement cisterns, and their durability, I would be much obliged, if you will permit me, through your journal, to answer several communications in regard to hydraulics.

1. Can hydraulic rams be put up and made to raise the water 50 or 100 feet, and be made durable? My answer, from experience, is—There is one running at this place, which has been in operation seven years, and I see no good reason why it should not continue for 50 more. I find the great failure in these machines is caused by bad setting, as I have fitted out

a large number which have given perfect satisfaction.

2. Can cisterns be made on sandy soil, without stone or bricks, that will be lasting? I have been engaged in the business for twenty years, and have put them in all kinds of soil, even quicksand, and am yet ignorant of a failure. I consider stone or bricks used a damage; the natural earth is far better to put the cement on, and with one third the expense.

3. Cement has got to be an article of commerce, and can be found in almost all large villages. I purchase a good article of the manufacturer for one dollar per barrel by the quantity.

4. Does it need slaking, like other lime?—No.

5. What proportions do you use, for pipe? One-fourth of lime, as a general rule; but it is necessary to vary from that, as some portions of sand are more porous than others, even in the same bed.

6. The color varies in different localities; the Onondaga cement is a yellowish cast; the Reg-sendale cement is of a light slate color. Burlington and the Newark Company at Kingston manufacture a good article. Onondaga cement requires to be differently prepared where you form an entire body, such as pipes.

7. Does it become useless after being ground one year? I have put down pipe of it after it had been ground and barreled seven years, and the pipe has been down and in use fourteen years.

8. New pipe can be attached to old, and made tight. It can be drilled, and lateral branches lead off for different purposes.

9. A good set of moulding rods with mould is worth twelve dollars.

10. What is the expense of putting down one inch cement pipe? One barrel of cement will make eight rods of pipe. My price is 37 1-2 cents a rod and furnished, and you can calculate the rest.

11. Is it durable? I believe when properly put down, it is as lasting as time.

A. BUTTERFIELD.

Colosse, N. Y.

It has been ascertained by experiment, that a cow will drink about eighty-seven pounds of water in twenty-four hours.

Diseases in the Eye of Horses.

We take the following from Dr. Dadd's *Modern Horse Doctor*. Though written more especially in reference to preventing diseases of the eye, they are equally applicable to all other ills that horse-flesh is heir to, for it is quite obvious that a horse or any other animal in a perfectly healthy condition is more likely to escape disease of any kind than one in a depressed state:

As prevention is much cheaper than cure, it must be obvious that it is of great importance to practice that system of management, with respect to feeding, exercise, cleanliness, and ventilation, which is most likely to prevent *ophthalmia*. When horses are put to regular daily work, their health will be best maintained by feeding them regularly three times a day with mixed diet, composed of bruised oats, shorts, meal, cracked corn, and cut hay.—These should be allowed in sufficient quantity and no more; for too much food must impair the digestive organs and derange the general health.

As regards *exercise*, it is indispensable. No man or horse can enjoy good health unless habituated to daily exercise; it tends towards their health and strength, assists and promotes a free circulation of the blood, determines morbid matter to the various outlets, develops the muscular powers, creates a natural appetite, *improves the wind*, and finally invigorates the whole system. The exhaustion produced by want of rest is equally dangerous; such horses, at certain seasons of the year, are always among the first victims, and when attacked their recovery is generally protected.

As regards *cleanliness*, the brush and curry-comb should be used morning and evening; the latter, however, must be dispensed with when the horse is laboring under any form of cutaneous disease, at least while in its actual stage. Good *rubbing* promotes the circulation of blood through the capillary vessels, acts as a counter irritant, and relieves congestions. Many of the diseases to which horses are subject, more particularly those of the alimentary canal, have their origin in a filthy skin. We are decidedly opposed to the use of the curry-comb with a view of divesting the horse's legs of mud and filth, for the parts below the *knee* and *hock* are destitute of fleshy fibre; from which circumstance the periosteum, envelop-

ing the bone, is more exposed to violence from the teeth and edges of the curry-comb—if a horse comes from his work covered with mud, the better plan would be to detach it, when dry, with a wisp of straw, after which a good stiff brush will *put on the polish*.

The admission of light into stables, being a subject next in importance to the former deserves a passing notice. Nothing is so detrimental to the eyes as sudden transition from comparative darkness to a glaring light; and probably many of our readers have, at some time, experienced the very unpleasant sensation of mingled pain and giddiness, which is not readily dismissed, after emerging from a dark room, and suddenly coming in contact with the glaring rays of the sun; and if they have they know how to sympathize with a poor horse.

Wintering Sweet Potatoes.

In one of your papers the last season I noticed instructions to *keep sweet potatoes*, and though your correspondent writes from Alabama, I think he omits one very important item, and one we here in this more southern region deem *indispensable*—that is, to *ventilate* them.

We here dig the *first day after a frost*, to prevent the effect of the frost on the vines descending to the roots, which affects the taste of the potatoes and causes them to rot the next day, or even on the same day; they are thrown into heaps, and covered up for the season—selecting a dry spot where the water will run off when it rains, and generally digging a small trench around to insure it. The first thing then to be done, is to place a pipe or chimney, made square, say from six to eight inches, in the centre of the heap, with auger holes bored through the sides from the bottom to the top. Around this pipe heap your pile; when completed to the height of the pipe, or within a few inches, place a few vines, some straw or hay on the potatoes; then lay on boards, and then throw in the dirt sufficient to protect them, leaving the top open to give vent to the moisture that evaporates from the heap, the sweating they necessarily go through. A shelter sufficient to protect the heaps from the rains should always be placed over them. In this way I have for twenty years always kept sweet potatoes, and never lose them; nor

do my neighbors ever lose them, if they have been dug before the frosts have injured them. The best and most productive variety to cultivate here in this region, 33 deg. 20 min., we find to be the *large red Spanish*.

A. H. DAVIES.

[Country Gentleman.]

Machinery in Farming.

It is not enough that farmers avail themselves of all the advantages which chemistry affords in its application to their art; it is not enough that they learn how to save as much as possible of the manures made on their premises, and the best method of applying these and also purchased specific manures; it is not enough that they know at what seasons and at what depths their soils should be cultivated. They must perform as many of the operations of farming by machinery as machinery can be made to perform to advantage.

There is no other way in which agriculture can keep pace in respectability, pleasure and profit, with the other arts. Without this expedient, it will be outstripped by them, and sink into comparative rank. By machinery as we use the word here, we mean all the mechanical contrivances which can be substituted for manual labor and combined with mechanical labor so as to increase its productiveness.—And the policy which we recommend includes also animal labor as a substitute for human labor, and as a more powerful co-operator with it.

So far as a horse or an ox can be made to do the work of five men, the horse or the ox earns the net product of five men's labor for the employer. If one man cultivates as much corn, and cultivates it as well, with one horse, attached to a cultivator, and one man, as his neighbor cultivates with ten hoes in the hands of ten men, it is easy to see which of the two is travelling faster on the road to wealth.

So in cutting grass, in planting and harvesting grain, in shelling corn, and in various other operations of the farm, machines can do the work for a small percentage of the cost of manual labor.—*Independent Examiner*.

We may live without a brother, but not without a friend. In order to deserve a good friend, we must become one.

From the Northern Farmer.

When should Timber be Cut?

MR. MINER:—Permit me to offer a few remarks to the readers of the *Farmer* on the best time for cutting timber, with a view to its durability. People generally imagine the winter to be the most suitable season for cutting timber, and that it will last longer, cut then, than other times. This is certainly a great mistake, and any one may convince himself of the fact by trying the following simple experiment: Cut two hand-spikes, one in the winter and the other in August, strip the bark from the latter, and then see which will last the longest, and which is the stiffer, stronger timber of the two. Now for the theory. The more sap there is in a tree when cut, the sooner it will rot.

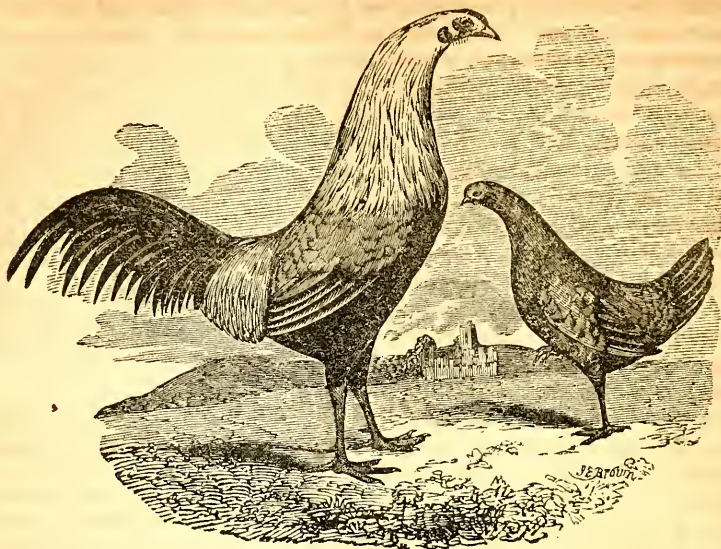
Timber contains the least sap when the leaves are fully matured—that is, from the 20th of July to the 20th of August, and that is the proper time for cutting it. In the winter it is full of sap, and if cut at that time, it remains there to rot it. The warm days of spring disengage the sap, which had been locked by the frosts of winter, and set it in motion. The buds and leaves soon commence putting forth, and the larger the leaves get, the more sap they require for their support. Trees when cut in summer bleed very little, which shows they contain but little sap, and what they do contain is much purer than at any other period. This purification is carried on by the leaves. In the day time the leaves exhale oxygen gas; in the night they emit carbonic acid gas, and absorb oxygen gas.

Now, when will the practical farmer cut his timber? Will it be when it contains the most sap and impurities, or when it has the least of either?

Yours truly,
Castle Creek, Broome Co., N. Y.

J. C.

WASHING SILVER WARE.—It seems that house keepers who wash their silver ware with soap and water as the common practice is, do not know what they are about. The proprietor of one of the largest and oldest silver establishments in the city of Philadelphia says that "house keepers ruin their silver by washing it in soap suds; it makes it look like pewter.—Never put a particle of soap about your silver; then it will regain its original lustre. When it wants polish, take a piece of soft leather and whiting, and rub it hard."



Sumatra Games.

"The progenitors of this race of fowls were, several years since, brought from the Island of Sumatra. The utmost care has been used to prevent the possibility of a cross in this stock.

This breed of Game fowls is, in my opinion, equal, if not superior to any other in the New England States. The hens are good sitters and nurses, and, for the size of the fowls, produce large eggs. The cocks have a brilliant plumage, and the hackles on the neck are very long and full-feathered, making a "perfect shawl." The body is round and plump; the neck is long and powerful; the breast, full; the wings are long, and cover the thighs; the beak is hooked and stout; the thighs are large and sinewy, and well set to the body; the legs are dark-colored and long; and the claws are strong, and, with the legs, exhibit great muscular power. The belly is compact, so as not to interfere with the agility of the fowls, which they possess to a remarkable degree. The tail is very long, and by its beauty adds much to the appearance of these birds. The chickens are easily reared, and bear the climate of New England as well as those produced by any other stock.

The flesh of the Game fowl is considered by all persons who have eaten it, as equal, if not superior, to that of other breeds, and, for the

size of the fowl, there is less offal than in any other.

For the incubation of eggs of rare and valuable breeds of fowls, Game hens are to be preferred to all others. Amateurs and fanciers will find it much to their advantage to employ Game hens as incubators of the eggs of the different breeds of Bantam fowls, as they are not so heavy or so clumsy as to break the eggs, and, at the same time, are most careful mothers, rarely or never injuring their chicks by their impetuosity, as hens of other breeds sometimes do. Game hens will most fearlessly attack cats and dogs in defence of their chicks; and I have known instances where full-grown rats have been killed by them.

Many persons are deterred from keeping Game fowls by the reputation the cocks have acquired, unjustly, I think, of being quarrelsome. The true bred Game cock is not, my experience teaches me, quarrelsome or vindictive. He resents the interference of any cock with his vested rights and privileges, and requires an instantaneous apology for an insult, and, if his antagonist demurs, a battle is commenced without the least delay. If the opposing cock retreats, the true Game does not follow, but with a loud, exulting, and derisive crow, expresses his triumph; but when Game

meets Game, death to one or both is inevitable, the true Game "never retreats." This often occurs at the first flirt. I have known an instance where both cocks were instantly killed by a "brain stroke."

For the rearing of chickens, a constant and regular supply of small grains is required.—The best kind is wheat, being preferable to barley or buck wheat. Indian corn, of course, is not to be used, on account of its great size, do not approve of giving to chicks any moist food, particularly Indian meal, as it will ferment in a short time, and become sour. Chicks should not be compelled to fast. Their crops are small, and the power of digestion is so great, that, if the food is not constantly within their reach, they are soon exhausted by the growth of feathers and bone, lose their strength, and death is the result. I have used the "screenings" of wheat for feeding chicks, and find them quite as good as wheat, although costing much less.

GEO. A. SMITH.

The peculiarities of Sumatra Game fowls, are as follows: They have no *wattles*, and scarcely any comb, and require little or no trimming, to fit them for the pit. The cock in my yard, which is now six months old, stands and carries himself loftier than most chickens at eighteen months old, all the time watching, as if alarmed. His general appearance is wild. The hen, (an imported one,) is a perfect beauty.—All who have seen the Sumatra Games, consider them the handsomest and most desirable ones they have ever seen.

As to their laying qualities, I would say—the very day I received the hen, July 3d, she began to lay, and continued, until she had laid twenty eggs, without missing a day; I then allowed her to sit. She raised me eleven chickens, and proved herself a good sitter and nurse. As fighters, they stand unrivaled, allowing themselves, (as I am credibly informed,) to be cut in pieces, without yielding. They are also fast fighters.

ALBERTUS WELCH.

—, Penn.

I received a pair of Sumatra Pheasant Game fowls, from Dr. Bennett, both young and promising, which, for symmetry of form and brilliancy of plumage, cannot be surpassed. The color of a dark, glossy green; the feathers on the neck of the pullet, of a bronze hue; their

eyes, remarkably brilliant and piercing; necks, long and serpentine; comb, serrated, and scarcely any wattles; legs and bills, black; body, firm and compact. The carriage of mine is noble and majestic. I have found them to be very small eaters, and much attached to each other, but on the introduction of a strange cock into their yard, they will attack and fight fowls thrice their size, and weight. I do not allow mine to fight, however, as they are too young. I am much pleased with them, and would not part with them for any consideration.

JOHN N. A. KOBR.

—, Penn.

From the Northern Farmer.

The Winter Rest of Trees.

Trees have not an absolute and entire rest during winter. The sap circulates more or less from root to branch during the mild days of the season. If the trunk of a tree is measured in autumn, and again in the spring, it will be found that it has enlarged itself. And yet, relatively to their condition in summer, trees in winter are at rest. They close their annual labors in autumn, some of them early in the season, others later. Some of them show that they are tired of making leaves and branches and fruit, even before frost comes. The maple, bass, birch and hickory indicate it, about the middle of September, by holding out flags of yellow and red. Others, as the elm and ash, give up work at the first touch of frost. But with what a splendid pomp do these and all the other trees combine to clothe the hills before they lay off their summer drapery and go to rest! This, their last, is the most brilliant performance of the year. It would seem that they did this on purpose that the world might deeply feel, during the desolations of winter, that it was a serious matter for them to go to sleep.—Some other trees, as the oak, willow, poplar, and certain fruit trees, hold their leaves unchanged several weeks after frost, and drop them only in the very teeth of winter.

An important part of the last work of all trees for the year, is the making of leaf and fruit buds for the next season. And what a beautiful and wonderful piece of work it is! By a subtle process, best known to themselves, (say, rather, known only to the God of nature,) the delicate germ is formed, around it small, tender

leaves are folded in successive layers, and over all a coat of varnish is laid, making it waterproof, and then this work is done! These buds being formed, and the newly-grown wood matured, so as to endure the cold of winter, the leaves rustle to the ground, and the entire summer's work of the tree is ended.

Trees obviously need this rest: they must and will have it. Leaves do not fall, simply because they are cut off by the chemical action of frost. They would fall, even if there were no frost. In some cases, they drop before frost comes. In our extreme southern States, and in the region of the tropics, trees have their rest in winter, as well as they do in northern countries. The oak, maple, mulberry, ash, peach, &c., cast off their leaves and remain dormant during the winter months, although the temperature of the air is as high as it is during much of the summer at the north. Their winter rest is, indeed, shorter than they would have in colder climates, but a season of repose, of considerable length, they always have.

The beech sheds its leaves in November, and does not send out new ones till April,—a rest of about one hundred and forty-nine days.—Several of the oaks rest one hundred and ten days. The palm-tree drops its leaves in the middle of October, and rests nearly one hundred days. The tulip-tree rests one hundred and fifty-seven days. From facts like these, it appears that many trees which are the natives of cold climates, when transplanted in warmer regions, drop their leaves nearly as soon, and rest nearly as long, as in their original localities.

Evergreen trees, likewise, have their period of rest, and that in all climates. They do not cast all their leaves at one time. Like deciduous trees, they have a short rest in summer, and a long one in winter.

If we dig up a small tree or shrub late in the autumn, and transfer it to a box or pot in a green house, it will not open its buds and grow, until it has taken its annual rest. We may water it ever so abundantly, and surround it with the air of summer, it will still claim its appropriate rest. That rest may be shorter there than it would have been in the open air; the plant may be forced into a premature growth, but it will show plainly that it needs a period of repose, and is reluctant to be disturbed. If stimulated too long, it will become

sickly, and at length die,—thus showing that an important law of nature has been violated. But suffer trees to lie dormant for a season and they will then start into growth at a temperature of 40 deg., while before such a period of rest they would remain unmoved by a temperature of 60.

We may infer from such facts as these, that little harm is to be apprehended to fruit-buds from warm weather in the early part of winter. At that time, trees have just got fairly settled in their winter quarters, and it will be almost impossible to arouse and call them forth. The violet may wake up and smile at the unexpected kiss of the sun, and certain other plants originating in warm climates, or of susceptible natures, may shoot forth leaves; but as a general rule, vegetation has lapsed into its wonted slumbers, and will not be disturbed at such an unseasonable hour. X.

Packing Butter.

We are requested to give the best mode of packing butter, in order to be kept sweet during the summer. It is well known that the first step to success in producing good butter, is to *work out all the butter-milk*. We cannot expect butter to keep well that is not well made. The next step is to see that your butter is packed in tubs made of wood that will not impart its flavor to the butter, and last exclude all air from it, and success is certain.—We annex a recipe for preserving butter, used in Scotland with great success. The Scotch are noted for their good butter.—*Ed. Northern Farmer*.

"Take two quarts of the best common salt, one ounce of sugar, and one ounce of this composition for one pound of butter, work it well into the mass, and close it up for use. The butter cured with this mixture appears of a rich and marrowy consistence and fine color, and never acquires a brittle hardness nor tastes salty. Dr. Anderson says: 'I have eaten butter cured with the above composition that has been kept for three years, and it was as sweet as at first.' It must be noted, however, that butter thus cured requires to stand three weeks or a month before it is used. If it is sooner opened, the salts are not sufficiently blended with it, and sometimes the coolness of the nitre will be perceived, which totally disappears afterwards."

Small Farms.

Most farmers, and especially those who are at the commencement of life, are ambitious of possessing large farms. Nothing short of a hundred acres will suffice, and rather than not be gratified in this, they will involve themselves in debt which will press upon their energies like an incubus, all their subsequent days. One thing which ought always to be taken into consideration by young men is, that he who possesses, even in fee-simple a large farm, can never cultivate it so thoroughly as he could a smaller one. The greater the number of acres, the greater of course will be the amount of expence. The taxes, also, and the interest on the capital invested are to be deducted from the often meagre acreable profits of the soil.— As there are few large farms that produce enough to manure them properly, the owners are under the necessity of either purchasing large quantities, or contenting themselves with light and unremunerating crops. Where one has a small farm, which involves but a comparatively slight expence for fencing, it is possible so to concentrate energy and capital, as to keep all parts continually improving; liberal applications of highly efficient and stimulating manures can be made to the arable portion, and remunerating and even affluent crops secured from the very fields, which, were their number or superficial extent to be doubled or even trebled, would scarcely compensate, by their products, the labor of fencing and carrying them on. In very many cases when but a single acre has been cultivated the profit has exceeded one hundred dollars, which is more than the industrious and hard working farmer often realizes from forty. A Roman citizen who owned but seven acres, which were cultivated by himself and an only daughter, flourished and grew rich. The people wondered, but how was their surprise augmented, when upon dividing and disposing of one half his freehold, they perceived that the annual amount of his crops, instead of diminishing in the ratio of the diminution of his possession, actually increased. They attributed this, to them, astonishing phenomenon to magic, and Cressian was arraigned before the proper tribunal as a necromancer who prospered through his knowledge of sorcery or the black art. To refute this charge, Cressian produced his

ploughs, carts and other implements of husbandry, and introduced his daughter. "These," said he, "are my only implements, and industry my only art." In our own country similar results have been experienced. Small farms are always more productive, in proportion to their superficial extent, than larger ones.

United States Agricultural Society.

CIRCULAR.

SECRETARY'S OFFICE, }
Boston, 11th Sept., 1855. }

MY DEAR SIR—Your note of inquiry as to the show of the United States Agricultural Society to be held in Boston on the 23d, 24th, 25th and 26th days of October next, was duly received, and of such arrangements as are already made or decided upon, I hasten to advise you.

The show grounds are situated in the limits of Boston, within reasonable walking distance of any part of the city, but ample facilities will be provided for those who prefer (and who does not?) to ride.

A fine public square, generously granted by the corporation for the purposes of the exhibition has been graded to a perfect level, and will be enclosed by a tight board fence ten feet high. Within this enclosure, a one-half mile track for the trial of horses will be carefully prepared; its curves are such, as our engineer assures us, that a locomotive can describe them at top speed; consequently, locomotive quadrupeds can with ease put out their full power without "breaking up," as on many other courses too often happens, to the damage of the horse's reputation for speed, the annoyance of drivers, and the disappointment of the "crowd." On the north, east and south sides of the grounds, adjoining the fence, will be erected stables for stock, extending in length over three thousand feet, with inner lines of stalls at each end of the track.

In the accommodations for animals we have adopted many of the best features of English shows, which I, at least, have never seen copied in this country. The effect to the observer will be fine; and the occupants in no whit the losers by the change. The Cochituate water, of which Bostonians boast, will be introduced and plentifully distributed through every part of the enclosure, for the greater convenience of exhibitors and exhibited.

Seats for 5,000 spectators will be built on the west side of the track, in the home stretch, so that occupants may oversee the two most important parts of the "trial of speed," viz: the start and the coming in; while their elevation will enable them to witness all the exciting and tantalizing occurrences incidental to a trot—the baulk—the break—the widening gap—the favorite's nose nearing the distance post, when his competitor's tail has passed the goal. This improvement has, I am pleased to see, been adopted at most of our large shows.

All the buildings upon the grounds will be erected under the superintendence of Mr. Jno. R. Hall, architect to the Society, whose professional taste and skill have secured to him an enviable reputation. These erections are beautifully designed, and with a proper distribution of the large and smaller tents over the vast area, cannot fail to produce a fine effect.

"An ounce of prevention is worth a pound of cure," and we shall accordingly take every precaution against the occurrence of accidents.

Of course, no one can now speak with any certainty as to the number or character of the entries which will be made; but we shall be sadly disappointed if in quantity or quality of stock it does not excel all our previous exhibitions; and, as you know, we had no reason to be ashamed of either of them. We calculate with considerable confidence on large entries from your State, as well as from those much more remote.

If your breeders conclude to come on, do not allow them to draw on us, *before they leave home*, for their premiums, as *being a sure thing*.

The horse department will be very certain to delight every lover of that noble quadruped. Already we have been advised of the intended exhibition of some of the finest imported animals in the country; and our horses of home manufacture will be in mass convention, you may rely upon it. The first trotters in America will try their speed on this national course for the championship; and the most famous stallions will be here to uphold their reputation. Come on and see them and bring all your friends.

The show of sheep and swine will undoubtedly be great and excellent; for their home is but a few hours' ride hence. Our Premium List has been sent to you, by which you will

see that we offer in the aggregate about *ten thousand dollars*. Our expenses may be estimated as near ten thousand more. Our admission fee is but twenty-five cents. So please give us your good wishes for one hundred thousand visitors, we hope for more.

On the afternoon of Friday, the last day of the show, a Grand Agricultural Banquet will be held beneath a large tent on the grounds. Seats for three thousand persons will be provided; and when you know that our excellent President, Marshall P. Wilder, will preside, and that Everett, Choate, Winthrop, with other eminent men from other States, are expected to address the assemblage, you will with reason anticipate an unusual treat for the physical and the mental man.

WILLIAM S. KING,
Sec. U. S. Ag. Society.

From the Northern Farmer.

Draining and Improving Lands.

I well know that much has been written on this subject, and many farmers have profitted by its advantages; but so long as there is a piece of unreclaimed land, capable of being rendered valuable by draining, so long is the subject worthy of being brought before the owner.

Some six years ago there was on my father's farm a piece of land nearly worthless, yielding only a light crop of grass of an inferior quality. Part of it was very stony, and the rest a blue clay, impervious to water, and almost so to the plow. It was broken up and thoroughly drained, thus making a convenient depository for the stones, which were used to lay a drain on the bottom, and then filled to within eight or ten inches of the surface with the small ones, and covered with earth. After cropping it a few years, and manuring lightly, it was seeded with timothy, and for the three years past it has yielded about three tons of good hay each season to the acre, at the first crop, and a heavy crop of feed after it. The whole improvement has resulted from underdraining.

Such work is generally best done in August or September, when other business is less pressing, and the ground in good condition to be worked.

J. H. DICKERSON.

Mt. Cannel, July 17, 1855.

Cut Fodder vs. Uncut.

MR. EDITOR:—I have deemed it not out of place to communicate to you my experience in regard to fodder. I was "born and bred" a farmer, in Windsor county, Vt., where they school their boys, and teach them the "way they should go." I was there early taught, in a practical manner, that "a penny saved is as good as two pence earned."

I have resided in Adrain, Lenawee county, Michigan, during the past twenty-five years, and have been engaged in farming and the manufacture of brick, and have constantly kept a number of teams on hand, and have been compelled to purchase a large proportion of provender for them. I learn, by experience, that I can save fully one-third of the hay and grain by cutting the hay and grinding the grain, and mixing them together before feeding. I dampen the hay-stalks, say an hour or two before feeding; then I put on the ground-grain just before feeding. Horses and cattle will masticate this mixture readily, and it is certainly more easily digested than if fed entire. There is a proper length to which straw or hay should be cut; but corn-stalks cannot be cut too short. About an inch is as short as hay or straw should be cut, and for the following reasons, as I have learned from experience: If cut shorter than about an inch, it is liable to "tip up" in the animal's mouth, and irritate, if not injure the gums; and, sometimes they eat with a ravenous appetite, and swallow without sufficient mastication, which causes irritation, if not inflammation of the stomach: but when cut about an inch in length, these mischiefs never follow.

I have observed that if coarse clover is cut and dampened, that horses and sheep eat it readily; but much more so, if a little ground grain is mixed with it; and the same observation holds good with regard to corn-stalks; they should be cut into lengths of about half an inch, and moistened at least half a day before feeding, in order to have the outer coat well softened. Horses fed on these corn-stalks will not be afflicted with the heaves, and if they have them, the stalks will cure them.—*Ohio Farmer.*

Every farmer in North Carolina should take a good agricultural paper.

Good Horse Provender.

The best provender that we ever gave to a horse was a mixture of two-thirds oat meal and one-third corn meal. The oat meal had been thought by some physiological chemists to contain much muscle, or flesh-forming matter, and the corn meal to contain much fat-forming material, and therefore, when combined together, we get both principles combined. Our experience with this feed corroborates the above theory.

A writer over the signature of W. W. B., in the Rural New Yorker of the 21st, recommends a mixture of oats and rye for horses. We think his plan of raising the two together, pretty good, and we therefore copy it.

"I had," says he, "a conversation with a man lately, who was an experienced farmer, having, farmed both in this State (N. Y.) and Ohio, and his manner of raising horse feed was this:—I take about 2 1-2 bushels of oats, and mix with them one bushel of rye, and sow this amount to the acre. The rye will support the oats in case of a heavy growth, and prevent lodging. In this manner I have raised sixty, seventy, and even eighty bushels per acre." The soil must have been very strong to do that, but the mixture is about in the right proportion.—*New England Farmer.*

WETTING BRICKS.—Very few people or even builders, are aware of the advantage of wetting bricks before laying them; or if they are aware of it, they do not even think of practicing it — for of the many houses now in progress in this city, there are very few in which wet brick are used. A wall twelve inches thick, built of good mortar, with bricks well soaked, is stronger in every respect than one sixteen inches thick, built dry. The reason of this is, that if the bricks are saturated with water, they will not abstract from the mortar the moisture which is necessary to its crystallization; and on the contrary they will unite chemically with the mortar and become solid as a rock. On the other hand, if the bricks are put up dry, they immediately take all the moisture from the mortar, leaving it too dry to harden, and the consequence is, that when a building of this description is taken down or tumbles down of its own accord, the mortar from it is like so much sand.—*Scientific Amer.*



The Carolina Cultivator.

RALEIGH, OCT., 1855.

TERMS

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Our Next State Fair.

The day is now near at hand, when the farmers and mechanics of North Carolina will, for the third time, meet in grand convention, for mutual encouragement and improvement. We trust that the occasion will furnish to the country new and impressive tokens of the progress of our people in every branch of industry, and powerfully stimulate us all to more persevering and systematic exertions for the future. The friends of the cause, those intelligent and active farmers who everywhere take the lead in public enterprise, are expected to employ all their influence in awaking the interest and directing the movements of their fellow-citizens, in preparation for a grand enthusiastic rally.—The people of Raleigh and its vicinity will await the result with hearts and arms ready to extend a cordial greeting to all who may attend.

What are the objects of a State Agricultural Fair? It would be well for all to have a clear understanding on this point, since nothing can be done properly in the prosecution of any im-

portant undertaking without a clear conception of its plan and ultimate end. A knowledge of our own deficiencies is the first step to improvement in any department of human effort. The next is an acquaintance with the various means by which others have reached a higher degree of excellence. The third is to have excited in our own minds a desire to cultivate these means and attain a similar elevation.—Experience has long taught that these objects are greatly promoted in agricultural communities by such exhibitions as that to which the farmers of North Carolina are now invited.—Their influence in England has been found, through a long series of years, to produce effects almost incalculable in the development of the resources of the country and the increase of its positive wealth. The farmers of the Northern portion of the United States, stimulated by example, have generally adopted the custom, and in some States annual agricultural fairs are held in almost every county, and are greeted as a happy festival by the whole community.

Let us therefore come up to this great meeting of the people with the spirit of brothers in a great and good cause, resolved to make the occasion not only gratifying to idle curiosity, but eminently instructive, elevating and profitable to the great agricultural body.

PURIFICATION OF WELLS.—The "Scientific American" recommends several means for the removal of Carbonic Acid Gas, the bad air which collects sometimes at the bottom of neglected wells, and proves fatal to persons descending into them. One plan is, simply to throw down some fresh burned lime into the water and stir it with a pole. Another is, to take about half a pailful of slacked lime, mix it quickly with cold water in a small tub, and lower it down to the water with cords attached to the lugs. Stir the contents for ten minutes, and then leave the vessel suspended for one hour longer.

A DELICATE FABRIC.—We learn from an exchange that the present Empress of the French has a dress which weighs but *one ounce*, woven from the fibre of a plant, one mile of which weighs but *five grains*! This corresponds well with the proverbial *levity* of the French character.

THE "N. C. STATE FAIR."

The Chairman of the Executive Committee of the North Carolina State Agricultural Society, in accordance with the directions of the Committee, has prepared the following preliminary notice, which we insert with pleasure.—The importance of an early attention to the rules and suggestions contained in it will be obvious to all.

The third annual "Fair" of the "N. C. State Agricultural Society," will open at Raleigh on Tuesday, the 16th day of October, and continue four days.

All articles to "be exhibited for premiums" must be entered and registered by the Monday night immediately preceding the day for opening the 'Fair;' Articles intended for exhibition on Tuesday, will be received at any time during the 'Fair,'—entirely at the owner's risk.

When stock has been received by the "Reception Committee" and properly registered, it will be kept at the expense of the Society, and like all other articles cannot be removed without permission from the "Ex. Committee." Exhibitors are earnestly requested to send in their articles early (the preceding week,) that they may be properly arranged before the opening of the "Fair."

The annual address before the Society will be delivered by the Hon. Thomas Ruffin on the Fair Grounds."

I am authorized to state the "North Carolina," "Wilmington and Weldon," and "Raleigh and Gaston" Railroads, will observe the following rules in transporting articles for exhibition at the "State Fair":

Exhibitors will be permitted to pass a single specimen of each of their articles to be exhibited, *free of charge*.

Live stock will be carried at half rate of *fare*, at owners' risk.

Visitors to the "Fair" will be permitted to pass at half rate of "*fare*" by buying a "Return Ticket" (which will be good for five days,) otherwise the usual rate will be charged.

The above rules apply equally to the "Union Fair" to be held at Henderson on the 10th, 11th and 12th of October.

During the "State Fair" extra Trains of Passenger cars will be run on the N. Carolina and Raleigh and Gaston Railroads, by which visitors can attend the Fair in the day, and lodge at


night at the various villages along the line of the Roads. A schedule will be published, giving notice of the arrivals and departures of the extra trains.

E. A. CRUDUP,

Chm'n Ex. Com. of N. C. State

Agr. Society.

Raleigh, Sep. 29, 1855.

 Papers throughout the State favorable to the Agricultural and Mechanic interest of North Carolina will please copy.

Making Bread.

Bad bread is bad economy. It is impossible to estimate the *losses* it continually occasions. It not only causes us to lose our temper, our comfort, and our health, but is often so much wasted, that cheap flour badly baked actually costs more in a year than the very best article at the highest prices would do under other circumstances.

As an instructive lesson to those who think that bread making is a simple, off-hand process, which may well be left to any ignorant negro who has learnt how to make corn-pone, we will here state, as briefly as possible, the process of making dough in the bakeries of Paris:

The leaven, which is either a portion of the dough obtained from the mass recently baked, or leaven made with good yeast, is left for seven or eight hours in a moderate temperature to rise. It is then kneaded with water and flour sufficient to double its volume, into a firm paste, and again left to rest for six hours.—Then it is mixed with more water and flour, and set aside once more. This process is again repeated, and in each case the kneading is thoroughly done. Lastly a small quantity of salt is added, and in winter it is mixed up before baking with a quantity of flour and water sufficient to *double* the mass. In summer the added materials should be in still larger quantity. The dough is now worked for a long time before it is committed to the oven.

This process cannot be fully imitated in private families, but it shows that good bread requires great labor and pains in its preparation. It is in fact a nice chemical operation, and can only be conducted by those who understand its principles, or have been carefully practised in the art.

The State Fair Regulation in regard to Foreign Articles.

We have been requested to give in the *Cultivator* the regulation adopted by the Executive Committee of the State Agricultural Society in relation to articles not manufactured in the State. The rule adopted is as follows:

"Articles manufactured in the State, when brought in competition with foreign articles will take precedence, other things being equal, and the foreign article be entitled to a second premium."

That is, if there are two articles of the same kind, one of which is manufactured in this State, the other in another State, and they are of *equal merit*, the article manufactured in the State will receive the first premium and the article manufactured out of the State, will receive the second premium; but if the foreign article is *superior* to that manufactured in the State, it will receive the first premium.

In this connection it may be well to mention that the 22d regulation as published in the list of premiums, which reads as follows: "No vehicles or horsemen will be allowed entrance on the Fair grounds, except the private carriages or horses of members, through the private gate," has been rescinded, and the same arrangement as obtained last year is still in force. All vehicles and horses, however, will be restricted to certain parts of the grounds, so as not to incommode visitors.

STUMPS.—This is a prolific subject. Stumps are very numerous in some places, forming the foundation of much good-for-nothing oratory, and the part of the politician, and eliciting much real but profane eloquence from the farmer. For the benefit of the latter, and at the hazard of inconveniencing the former, it is suggested that these vexatious obstacles to the progress of the plow may be easily removed by chaining a strong up-right lever to them, and hitching a pair of oxen or mules to the upper end. In this way they are forcibly overturned, and their roots broken so that they can be removed.


HEDGES.—The "Working Farmer" speaks highly of the American Locust for hedges. It says its roots do not extend as far as those of

the Osage Orange, and it is both hardy and lasting. It requires to be shortened every year. The suggestion is worthy of attention.


MCCORMICK'S REAPER—ENVIABLE FAME.—It is stated that McCormick's Reaper gained the victory at the Paris Exhibition, before the international jury, over all the reapers, French, English, and American, with which it competed. The success of the inventor of this machine is such as to reflect great honor upon his country, and afford strong encouragement to his countrymen. His example should teach our young farmers and mechanics that ambition may reap its reward in other fields than those occupied by the political demagogue.

PREMIUMS.—We think liberal premiums should be offered hereafter at our annual exhibitions, for good original essays on practical subjects connected with agriculture and manufactures. The suggestion is worthy of some attention at the approaching meeting of the society. Other States are far ahead of us in this respect. They take pains to foster an agricultural literature.

FARMERS' CLUBS.—In every county, the farmers should form an association for mutual encouragement and improvement. This is the best way to elevate the agricultural interest.—Remember the fable of the arrows. Taken one by one, they were easily broken; bound together, they defied the most powerful exertions.

 **The Hon. THOS. RUFFIN**, President of the N. C. State Ag. Society, will address the Society and the public at the approaching Fair.

The October number of that fashionable Philadelphia publication, **PETERSON'S LADIES NATIONAL MAGAZINE**, has been duly received. It is as usual well supplied with illustrations and other embellishments, and contains much excellent reading.

 **GRAHAM'S** well-known magazine, for October, has for some days been on our table. It is altogether worthy of its ancient reputation. It is one of most elegant monthlies in the world.



Horticulture.

A Few Hints on Budding.

Budding, or *inoculation*, is one of the most general, and, in this country, by far the most important method of summer propagation.—This operation consists in removing a bud from the variety to be propagated, and inserting it on another which is called the stock.—Its success depends upon the following conditions: In the first place, there must be a certain degree of affinity between the stock and the parent plant from which we propose to propagate. Thus, among fruit trees, the Apple, Crab, Pear, Quince, Mespilus, and Mountain Ash, all belong to the same natural family, and may be worked upon each other. The Plum, Apricot, Nectarine, Peach and Almond, form another natural division, and work upon each other. The Cherry must be worked upon some kind of Cherry, and Currants and Gooseberries go together. In general practice the Apple is worked either upon Apple seedlings, which are called free stocks, or upon the *Doucin* or *Paradise*, which are dwarf growing species, and are used for the purpose of making small trees. The Pear is worked either upon Pear seedlings, which are called free stocks, or upon the Quince, to make dwarfs; occasionally it is worked upon the Mountain Ash and Thorn. But it must be borne in mind that while all varieties succeed on the Pear seedling, a certain number fail entirely on the other stocks we have named. Lists of such succeed particularly well on the Quince will be found in previous numbers of the *Horticulturist*. The Cherry is worked upon seedlings of what is known as the *Mazzard*, a

small, black, sweet cherry, that form a very large, robust tree; or for dwarfs, on the *Mahaleb*, or perfumed cherry, which is a small tree with bitter fruit, about as large as a common pea.

In the second place, the buds must be in a proper state. The shoot, or scion budded from, must be the present season's growth, and it should be mature—that is, it should have completed its growth, which is indicated by the formation of a bud on the point, called the *terminal bud*, and the buds inserted should all be wood buds. On a shoot of this kind there are a number of buds unsuitable for working; those at the base being but partially developed, are liable to become *dormant*, and those on the point, where the wood is pithy, perish. The ripening, or maturing of the buds, must regulate the period of budding, so that the time at which any given tree or class of trees should be worked, depends upon the season, the soil, and other circumstances which control the ripening of wood. In our climate, plums usually complete their growth earlier than other fruit trees, and are, therefore, budded first; we usually have ripe buds by the middle of July. In some cases, when the stocks are likely to stop growing early, it becomes necessary to take the buds before the entire shoots have completed their growth, and then the ripe buds from the middle and lower parts are chosen. Cherries come next, and are generally worked about the first of August. The buds *must* be mature, or a failure will be certain.

In the third place, the stock must be in the right condition—that is, the bark must lift freely and cleanly from the wood, and there must be a sufficient quantity of sap between the bark and wood to sustain the inserted bud and form a union with it. Stocks, such as the common sorts of plum, pear and cherry, that finish their growth early, must be worked early; while such as the Peach, Quince, wild or native Plum, *Mahaleb* Cherry, &c., that grow late, must be worked late. If these stocks that grow freely till late in the autumn be budded early, the buds will either be covered up—"drowned," as it is technically called—by the rapid formation of new woody substance, or they will be forced out into a premature growth.

A very great degree of sappiness, in either the stock or bud, make up, in part, for the dryness of the other. Thus, in the fall, when plum buds are quite dry, we can work them successfully on stocks that are growing rapidly. This is a very fortunate circumstance, too. Young stocks, with a smooth, clean bark, are more easily and successfully worked than old ones, and when it happens that the latter have to be used, young parts of them should be chosen to insert the bud on.

In localities where buds are liable to injury from freezing and thawing in the winter, the buds are safer on the north side of the stock, and when exposed to danger from wind, they should be inserted on the side facing the point where the most dangerous wind blows from. Attention to this point may obviate the necessity of tying up, which, in large practice, is an item of some moment.

In the fourth place, the manual operation must be performed with neatness and dispatch. If a bud be taken off with ragged edges, or if it be ever so slightly bruised, or if the bark of the stock be not lifted clean without bruising the wood under it, the case will certainly be a failure. A rough-edged razor is no more certain to make a painful shave, than a rough-edged budding-knife is to make an unsuccessful bud. It takes a good knife, a steady hand, and considerable practice to cut off buds handsomely, well, and quick. As to taking out the particle of wood attached to the bud, it matters little, if the cut be good and not too deep. In taking out the wood, great care is necessary to avoid taking the root of the bud with it.—Then, when the bud is in its place, it must be well tied up. Nice, smooth, soft strips of bark, like narrow ribbons, are the best and most convenient in common use. Every part of the cut must be wrapped firmly, to exclude air completely; and this should be done as quickly as possible, as the air soon blackens the inner surface of the new parts that are placed in contact.

We have thus stated briefly, for the benefit of beginners, the chief points that require particular attention in budding or inoculation.—Amateurs, who have little to do, should choose the mornings and evenings, or cloudy, cool days, to do their budding; but nurserymen must work in all weathers, and in all hours of

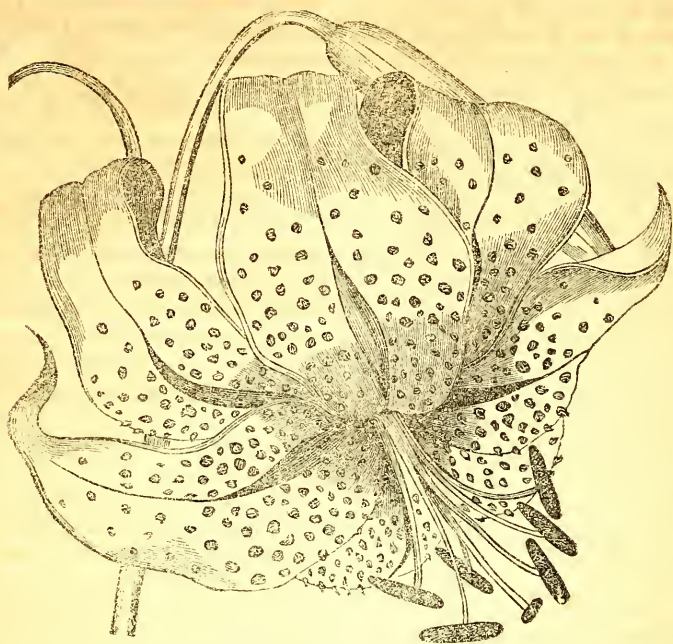
the day; but their superior skill and quickness renders it less hazardous. When only a few stocks are to be worked, and the weather happens to be dry, a thorough watering or two will be of great service in making the bark lift freely.—*The Horticulturist*.

The Catawba Grape.

Those who love and now and then imbibe the "Sparkling Catawba" will read with some relish a statement of the origin of the grape, from which this (delightful?) beverage is made. In furnishing the world with this commodity, it will be seen that our section has done the greater share. The following paragraphs we extract from an article in the *Charleston Mercury*:

On the authority of Mr. Mosher, President of the American Wine Grower's Association of Cincinnati, who appears to have investigated the subject very thoroughly, the origin of the Catawba grape is now referred to Buncombe County, North Carolina. They were first found at Murraysville, near Flat Rock (at present the residence of Mr. Blake of this State, but at that time owned by Mr. Murray, the father of Wm. Murray, very well known to all who ever visited the Limestone Springs in Spartanburg District, and at present living near Catoosa Springs, Ga.) In 1802, Mr. Murray says the grapes were growing in great abundance at his father's farm; and in 1853 he showed us at his farm near Catoosa, a vine then in bearing, which had come from the original stock in Buncombe.—For the later history and propagation of this grape, I quote from the communication of Mr. Mosher to the *Western Horticultural Review*:

"In 1807, Gen. Davy, a Senator in Congress, then living at Rocky Mount, on the Catawba river, South Carolina, in the bounds of the Catawba nations of Indians, transplanted some of these grapes to his residence, and some time between the years 1807 and 1816, he took some of them with him to Washington, gave them the name of Catawba Grape, and disseminated them among his friends in Maryland. From this source it is probable they fell into the possession of Mrs. Schell, from whom Major Adlum obtained them, and made wine of them in 1822. "In 1822, he sent the vines, with some of the wine, to Mr. Longworth, of Cincinnati.—*Yorkville Enquirer*.



Lilium Speciosum.

The above cut represents a species of Japan Lily, termed *Speciosum*, said to be one of the most beautiful in Japan. The flower is of a rose color, tinged with white, and studded with small, bright, crimson points that project on the surface of the flower.

This Lily has generally been confined to green-houses in this country, yet in the vicinity of Philadelphia and Cincinnati it blooms finely in the open ground.

The cultivation of flowers is not a *childish* pursuit, as many persons suppose, who are wholly insensible to the beauties of nature.—The great Naturalist of the universe has clothed the fields in spontaneous profusion of gaudy flowers that no painter can imitate.

“Behold the lilies of the field; they toil not, neither do they spin, yet solomon in all his glory was not arrayed like one of these.”

When we see a young lady rise with the sun, and go into the garden and weed her beds of flowers, and as evening approaches enliven them with a shower from the water-pot, when the clouds have withheld their genial rains, we at once know that she possesses an amiable disposition, and will make an industrious and affectionate wife. On the other hand, we look

with fearful forebodings on all young ladies who see nothing worthy of their admiration and care in the floral creation, and when we see a young man about to marry such an one, we caution him to beware lest he wed a *senseless* piece of humanity, who will render his days miserable.

The following directions for the cultivation of the above Lily are given by a cotemporary:—Ed.

“The culture of this species of lily is very simple. The compost for them should be sandy loam and well rotted hot-bed manure, in equal parts, and a sixth part of white sand. They will be found to grow much stronger, and produce finer and more numerous flowers in such a compost, than in heath mould only, as it is the practice of many to grow them.—This may be relied on from our own experience, extended over many years of their culture. They should be potted the beginning of January, for they commence their annual growth at root thus early, and if delayed, the rootlets from the bulb are liable to be injured. The bulbs should be shaken out from the old mould entirely, and placed two inches under the surface, in a pot of a size that leaves two

inches between the bulb and the side of the pot, and then put in a green house, or a cold frame. But no water should be given until it is observed to shoot up through the earth.—Then water must be supplied gradually at first, but liberally as the growth progresses. In about six weeks from the appearance of the stem above the earth, it may be shifted with benefit into a pot two sizes larger than the former, taking care not to break the ball of earth, and to place it one inch deeper in this pot than it was in the last. The middle of May the pots may be placed out of doors, where they get the morning sun only, for two or three hours, and they will bloom the finer for it.—But the sides of the pots should be protected by moss or some non-conductor of heat, from the action of the sun. After blooming, continue watering till the leaves begin to turn yellow, then discontinue it, and let the bulbs rest till the end of the year.

Special Manures for Fruit Trees

As a general rule, some kind of compost made of common yard or stable manure, is best and most reliable for fruit trees. Successive layers of turf, or of muck and turf, in connexion with one-third or one-half manure, and a small quantity of ashes, worked together after lying a few weeks, will be found admirable in nearly all cases, if used in proper quantities. But in rare instances, a special application proves of eminent advantage. An example of this sort occurs in a statement of the Shakers at Harvard, Mass., published in the Patent Office Report. The soil is clayey, but the trees grew poorly. They applied all the special manures suggested by experiments or reading, until observing the effect of urine on an unthrifty apple tree, they were induced to try it on pear trees that remained unthrifty in spite of iron, bone-black, ashes, lime, and high manuring. "The result was, the trees shot up a growth as luxuriant as weeds in a hot-bed. Those which had rarely made an inch of growth in a season, grew scions from eighteen inches to three feet, even in the summer following the operation." The mode was to apply about two quarts, sprinkled around each tree at a time; to stir the surface of the earth a little, so that it may be well mixed, and pre-

vent the formation of a crust. A cloudy day is recommend. The operation is reported a month afterwards; and again on those trees not showing a satisfactory result. Caution is needed not to over-stimulate—the quantity must of course vary with the size of the trees, but we are not definitely informed in this respect. The full effect is not confined to the first year. What particular ingredient, or rather what particular form of it, contained in this application, not to be found in ordinary manure, produced so extraordinary results, we leave for theorists to determine, if they can do it with certainty.—*Country Gentleman.*

Toads.

A correspondent of the *Cambridge Chronicle* puts in a plea for toads, and justifies his partiality by the following, which we extract from his communication:

"We have in our garden a small nursery of plum trees, which have been nearly destroyed by the canker worms. Last season we commenced shaking them off. One day we observed many toads about these trees, that on our approach became frightened and retreated in great haste to their retreats in the neighboring bushes. Soon finding that they were not pursued, they commenced hopping back, and caught with avidity each canker worm, as it descended on its tiny thread. We counted at one time thirty immediately round our feet.—Day after day we fed them with their favorite food, and they became so tame as to follow us, watch our hand, and take the worm from our fingers."

This is new to us, though it may not be to many of our readers; but whatever taste the toad may have for canker worms, we are quite sure that it does a world of good in a garden, by destroying earth worms, of which it eats large numbers. We once tried to surfeit a toad with earth worms, but our patience was appeased, and we have always held that to destroy one of those disgusting looking reptiles was doing one's grounds a deal of injury.—There is no charge brought against the toad but its disagreeable appearance, and it might well quote the old saw to those who despise it without seeking to learn its real value—looks are nothing, behavior is all.

Miscellaneous.

Agricultural Society.

At a meeting of the Mecklenburg county Agricultural Society, August 24th 1855. Present, A. Springs, President, C. T. Alexander, B. W. Alexander, D. Parks, J. H. Walker, John Walker, A. B. Davidson, H. B. Cunningham, Dr. J. W. Ross, R. F. Davidson, C. Overman, Robt. Henderson, J. L. Springs, E. C. Grier, Wm. Johnston, Dr. J. M. Davidson, P. J. Lowrie, Dr. J. M. Strong and M. D. Johnston.

There being a quorum present the President took his seat and called the meeting to order.

The Secretary being absent, P. J. Lowrie was appointed in his stead *pro tem*.

A Committee consisting of D. Parks, Wm. Johnston and John Walker, were appointed to revise the By-Laws of this Society by the 22d of November next.

November 22d, 1855, was the day fixed upon as the day for holding the Annual Fair of this society. The following Committees were appointed to examine and award premiums for different articles:

On Live Stock.—John Walker, C. Overman, J. H. Davis.

On Grain, and Vegetables of every Description.—Dr. J. W. Ross, C. T. Alexander, and Robt. Henderson.

On Goods of Domestic Manufacture.—Gen. J. A. Young, Thomas N. Alexander, and B. H. Davidson.

On Agricultural Implements, Vehicles, &c.—Dr. J. M. Davidson, Col. B. W. Alexander, and J. L. Springs.

It was moved and carried, that the list of premiums offered by this society be published three times in the papers of this town.

Twenty-five cents (25 cts.) was fixed upon as the admittance price to the fair ground on the day of exhibition.

P. J. Lowrie was appointed to select and procure suitable badges for the officers and members to wear on days of exhibition.

J. A. Young was appointed Marshal of the day, (22d Nov.)

P. J. Lowrie was appointed to confer with the Charlotte Sax-horn Band, and invite them to play for the society on that day.

On motion, the society adjourned to meet on the 22d November next, at 10 o'clock, A. M., at Kerr's Hotel.

A SPRINGS, Pres't.

P. J. LOWRIE, Sec'y, *pro tem*.

N. C. Whig.

Agricultural Fairs.

The season for the Agricultural Fairs has now nearly arrived, and we published in our last number a list of those which are shortly to occur. We beg to remind our readers of the importance of these associations. Farmers are not migratory, and therefore lose the advantages gained by the experience of others, unless they annually devote a portion of their time to visiting public fairs. Merchants, mechanics, and manufacturers, are readily informed of all the current improvements of the day connected with their various vocations, but the farmer is required during a large portion of the year, to remain within the boundary of his own farm, and is, therefore, restricted to the results of his own experiments, except so far as he may find those of others recorded in the agricultural journals. These alone seem to be insufficient for many of his purposes. He requires to meet and converse personally with farmers from different parts of the country.—He also requires to see specimens of the products of others, and learn from those producers who do not write for journals, their modes of cultivation. He should see all the improved tools of the day, and these are not only to be met with at fairs, but they may there be seen in operation, so that he can judge fairly of their effects, value, &c. Indeed, an agricultural Fair is to the farmer, what the Exchange is to the merchant, and it is scarcely possible for him to post himself up even with the day, without visiting these exhibitions. The more prominent men connected with agriculture are here to be met with, and addresses are often delivered, which fully compensate for the expense and time spent in travel.

Where else can the farmer see so large a collection of improved stock, and, indeed, how else can he supply himself with the best specimens for his own farm? Beyond the interest of the farmer, it is a duty he owes to society to encourage, by his presence, such exhibitions as tend to elevate his craft. He should remem-

ber that his vocation is more important than all others, and therefore, as a citizen, he should give it his best thought and entire exertions.

We have never visited a fair without learning some new practical fact, or at least without seeing a variety of results which would go far to endorse or refute those we were ourselves trying; and we doubt much if any farmer can visit any State Fair without receiving some benefit. He can either obtain some improved implement, some valuable animal, or some improved seed, as compared with those he already possesses.

No class of men require associations more than the farmers; their vocation generally debars them from mixing with the world at large. The remedy is to be found at fairs. At such places they meet with others, who like themselves, are in search of novelties, and thus they may exchange ideas, form new and valuable acquaintances, and above all, make resolves which will add new impetus to their future success. A few dollars so spent is not badly invested. We intend to visit as many of the State Fairs as practicable. We have agreed to deliver addresses at some of them. We shall be glad to meet our friends at Indianapolis, Indiana, on the 16th of October.—*Working Farmer*.

Judging of Animals at Fairs.

Among the drawbacks to the satisfaction resulting from our agricultural shows, is the real or fancied mis-awards of the judges, especially on live stock. This arises partly from a hasty examination, and partly from the peculiar standard by which some people pass upon the merits of animals. Some men are not well balanced themselves, and will not so much judge of the animal as a whole, as by some favorite point which strikes their fancy. This is wrong, and a judgment made upon such grounds is unjust. To remedy this, a scale of points was established by the N. Y. State Ag. Society, giving due value to each point in an average of the whole. This scale, with some others, we published in the *Cultivator* for 1853. A correspondent of the *Mark Lane Express*, writes the following good suggestions, which we commend to judges of animals at our County Fairs:

The difficulties which are often experienced by the most competent judges, in deciding be-

tween two really first-rate animals of a first-rate sort, are greater than the majority of people who have never acted in the capacity of judge have any idea of. I am happy to say that at the meetings of the Royal Society, such cases frequently do occur, and, I hope, always will, and with the wish that what I here suggest may tend to assist judges on their laborious duties, I am induced to trouble you with these remarks.

I will take an instance of two first-rate short-horn bulls, neither of them having a faulty point. Judge A. says, "What a superb back No. 1 has!" B. says, "But look at that depth of carcass in No. 2!" "But the length of quarter in No. 1!" continues A.; and in return B. draws attention to the silky texture of the skin of No. 2. The question is here put to Judge C., who *should* decide the case; but he has to balance, in *his* mind, whether a superior back is more to be considered than an extraordinary depth of carcass; and again, is a first-rate quality of hide equivalent to an unusual length of quarter? And thus points, without having some definite value attached to them, might be compared one against another, *ad infinitum*, without ever coming to a satisfactory conclusion.

Now, what I wish to see is, a definite value affixed to every point in the perfect animal, and when such cases of nicety as I allude to do occur, let the judges take point by point, and compare value in numbers, and then the animal commanding the highest amount would be the one selected. If the perfect animal were 50, the component parts might be something as follows:

	Bull.	Sheep.	Boar.
General appearance,	8	12	10
Back, (length and width,)	8	10	8
Chest,	6	4	5
Width of hips and loin,	5	4	5
Depth (rotundity of carcass,)	5	5	4
Quarters,	5	3	3
Head,	4	4	9
Hide (or wool,)	4	5	2
Bone,	3	2	2
Shortness of legs,	2	1	2
	50	50	50

This table is merely on a rough scale; but, I think, if the committee of the Royal Society would devote one of their meetings to the consideration of the subject, their time would not be wasted; and a scale made under their di-

rection, similar to the above, would be received by the agricultural public as an authentic data thereof.

Pure Native Iron.

The scientific world, up to the present time have never deemed the proof which has been produced in favor of the existence of a native iron sufficiently conclusive to settle the question. But it seems that the controversy is, at length, in a fair way to be ended, by the discovery of the interesting fact in chemistry, or mineralogy, that pure native iron is no longer a fiction, but a reality. Mr. Coppinger, of the Colonization Society in Philadelphia, says the North American, has received a specimen of iron from Bassu county, Republic of Liberia, accompanied by the following communication:—

"I send you a piece of African ore, just as dug from its native bed, or broken from among rocks. I have seen and conversed with a number of natives, who affirm that it is actually the pure ore, or just as taken from its native bed. I obtained a piece through Mr. Geo. L. Seymour, who had tried in vain to dissect it; and I being of that craft, he brought it to my shop for that purpose. When he brought it, it appeared like a craggy rock, of yellowish color on its surface, and, with a very small exception, it could not be separated but by heat and hard pounding with my largest sledge hammer and a chisel prepared for the purpose. I also send you a tea spoon which I made of some of the ore, which in its crude state is superior to the iron brought here for sale by English merchant vessels. You may see at a glance, that if in its crude state so great a polish, with a bad contrivance, can be put on the metal, what it would be with a fair chance; though I did not make this spoon as neat as I could, as my leading design was to show the quality of the metal. I am told by the natives that it is plentiful, and about three days' walk from our present place of residence; it is gotten by digging and breaking rocks. It is also said to be in large lumps. In these parts, the natives buy no iron, but dig it out of the ground, or break the rocks and get it, as the case may be."

This specimen of iron, continues the American, has been recently submitted to the most rigorous analysis, by Dr. A. A. Hayes, a well

known and esteemed scientific chemist of Boston, who pronounces it by conclusive proofs, to be a true native iron, not meteoric, nor reduced in any way from an ore. It was found to contain minute crystalized particles, which would have been destroyed by smelting. It contained no carbon, which all manufactured iron must of necessity contain. Its character as native Iron, we understand, is fully admitted by Professor Silliman and other most competent judges of such matters. The settlement of this question is of great scientific interest and practical importance. Dr. Hayes is preparing an account of his investigation which will be soon presented to the public.

Salt for Animals.

Professor Simonds, Veterinary Inspector to the Royal Agricultural Society, observes, in relation to the action of salt on the animal economy, that "it is exceedingly beneficial in moderate quantities, but prejudicial in large ones. He thought horses might take with advantage from an ounce and a half to two ounces of salt daily; but that an excess of it would render animals weak, debilitated, and unfit for exertion. Similar facts were applicable also to oxen, which accumulated flesh faster by the judicious use of salt, than without it. He cited Arthur Young and Sir John Sinclair, to show that salt had a tendency to prevent the rot in sheep. Prof. S. added, as his own opinion, that salt, by its action on the liver, and the supply of soda it yielded to that bile, led to a greater amount of nutriment being derived from the food. The substance, he said, was also well known as a vermifuge, destroying many kinds of worms in the intestines of animals, and conferring a healthy tone of action which prevented their re-occurrence. Several members of the R. A. Society, as Col. Challenger and Mr. Fisher Hobbs, stated that their experience led them to agree with Professor Simonds in regard to the value of salt for animals.

In reference to the mode of giving it, the practice of placing large lumps of rock salt in a field or yards, where it was always accessible to the stock, was mentioned with approbation. This practice is now adopted by many farmers in this country, and, after several years' trial, is preferred to the former mode of giving salt

periodically. When animals are only allowed to have salt once or twice a week, it is sometimes the case that they eat too much at once; but, by having it constantly in their reach, they eat in such quantities as their systems require, and it assists digestion and promotes health and thrift.—*Albany Cultivator*.

Pickles.

A great many vegetables are used for pickles, but after all, we are inclined to the persuasion that none are superior to the quaint, good, old-fashioned cucumber. When intended for this use, cucumbers should be taken from the vines when of small size, and if the appliances for immediate pickling are not at hand, they may be placed in an earthen or wooden vessel and covered with a strong solution of salt in pure water. For pickling, we submit the following rules:

In the process of pickling, brass vessels, properly cleansed, are preferable to iron. No vinegar should be allowed to cool in them, as this would tend to the formation of verdigris, which is an active poison. Vessels that have any grease or fatty substance about them, should be rejected as unsuitable, and in fact none should be used that are not perfectly sweet and clean. Having prepared your receptacle, make a liquor by boiling alum and salt in vinegar, in the proportion of a two-thirds of a teacupful of pure salt, to a table-spoonful of alum in three gallons of vinegar. If any scum rises, boiling should be resorted to, and all the extraneous matter taken off till the liquor is reduced to a state of perfect purity. Moderately strong vinegar is the best for pickles. Should it lose its strength, it may be drawn off, and fresh vinegar substituted. The best cucumbers for pickling are those that are small and green, and of tolerably rapid growth. In taking them from the vines, they should be cut, not pulled off, and as much of the stem should be preserved on the fruit as possible. They should then be placed in a wooden vessel or earthen jar, and have boiling water poured over them. In this water they should remain four or five hours, when they should be removed to another vessel, and have cold vinegar poured upon them, and in which a spoonful of alum and a cupful of clean salt has been dissolved.

When you have done pickling for the season, decant the liquor, and scald and skim it as above directed, until it is freed from all extraneous matter, and rendered perfectly pure and clear; then put in the cucumbers and scald without boiling for five minutes, and return them to the jars while hot. Cucumbers preserved in saturated brine, may be prepared for pickling, simply by soaking and scalding.—When this process is adopted, no salt need be added to the vinegar. If peppers or spices are deemed advisable, they should be added to the liquor while hot, and before it is introduced to the pickles. Some pickle their cucumbers by taking from the vines, and after having washed them thoroughly place them in a mixture of New England rum and molasses. In this way very excellent pickles are made, and with very little trouble or expence. A few bell peppers added to the mass, will tend to impart a good flavor, and give a pungent taste to the vinegar. The long prickly cucumber is perhaps the most elegant for pickling, although the green cluster is a very desirable variety for this purpose.—*Gen. Telegraph*.

Destruction of Thistles and Dandelions

We learn that Sulphuric Acid has been proposed by M. Renier, in a letter to the Minister of the Interior of Belgium, as an easy and sure mode of destroying such weeds as Thistles, Dandelions, &c. The sulphuric acid is put into a glass vessel resembling a teapot, but instead of a loose lid it has a short, narrow, tubular neck, which expands into a funnel, into which the sulphuric acid is poured when required. The acid is dropped into the centre of the plant intended to be destroyed; the leaves very soon turn black and fall: while the disorganizing action of the acid is carried down to the roots, and completely kills them. The advantages are stated to be—the destruction of weeds without injury to adjoining plants; that this may be done at any time after the weeds begin to make their appearance; that a boy of the age of 12 or 15 years can destroy as many weeds by this mode as would require several men applying the old method of extirpation; and that it is the only mode by which Thistles and such deep-rooted species can be effectually destroyed.

M. Renier's letter having been published in

the agricultural journals of Belgium, M. Ysa-beau remarks in the *Flore des Serres*, that it does not furnish certain essential data. 1. At what degree the acid ought to be employed. 2. The quantity required per acre, in order to completely clear a field much infested with Thistles, &c. 3. The expense per acre. He also objects to the use of glass vases, so brittle that, in the hands of children especially, serious accidents are, in consequence, likely to occur. He moreover doubts whether the roots would be all so effectually destroyed, as that crowds of suckers would not spring up.

In this country, salt is sometimes employed advantageously for the same purpose. The merits of both modes are certainly worthy of comparative trial.

Crossing Sheep.

For upwards of fifty years I have seen a great deal of crossing the different kinds of sheep—Leicesters with Leicesters, Leicesters with Cotswolds, Leicesters with South-Downs, and Leicesters with many other kinds of sheep. I have always found the Bakewell or Leicester sheep to improve every kind they have been put to by giving them the Bakewell barrel form, small bone, and to feed at early maturity. The first cross in most animals has been proved the best; the next cross generally produces size and weight, except you put a gigantic animal to the first cross: when I say gigantic, I do not mean an animal made a giant with fat flesh, with the heads and ears of a dwarf upon him—I mean a giant in frame when in a lean estate with bone in proportion, aye, and a head and ears in proportion to his body—a long, thin head, and not a gigantic broad one. Giants do not produce dwarfs, neither do dwarfs produce giants, any more than bull-dogs produce greyhounds. It has been proved that a gigantic ram has been produced from a dwarf ewe; at the same time it was proved that a giant ram lay in the adjoining field, which very easily accounted for the giant being produced from a dwarf. It has always been said that like produces like, and a fine bone denotes a feeding propensity, and a long face and ears with a Roman nose, denotes a large breed.—The breeders of Lincolnshire sheep say that neither the Cotswolds nor the Downs mix well

with their heavy-wooled sheep, but a dip of the Leicesters does wonders. So says the famous Mr. Kirkham, of Hagnaby. Mr. Bakewell always said that extremes were bad, and that the middle sized animals answer the best for profits. But, above all things, said Mr. B., let an animal's make be in proportion—not very large in one point, and very deficient in another. Size has nothing to do with profit; it was not what an animal made, so much as what it costs making. The Lincolnshire farmers are second to no men in the improvement of waste lands; the Wolds, Lincoln Heath, and the Fens, for instance: the lower parts are now drained by steam engines. And the breed of sheep which they have is the most profitable for their county.—*Samuel Arnsby in Mark Lane Express.*

MECHANICS.—Mechanics are the palace builders of the world. Not a stick is hewn, not a stone is shaped in all the lordly dwellings of the rich, that does not owe its beauty and fitness to the mechanic's skill. The spires that raise their giddy heights among the clouds, depend upon the mechanic's art for strength and symmetry; the thousands of noble ships that cover the seas of the world; the magnificent steamers that plow the Northern Lakes and Western Rivers; the swift locomotives that traverse thro' the States with the rapidity of lightning, are all the construction of that noblest of human beings—the mechanic.

Not an edifice for devotion, for business, for comfort, but bears the impress of their handy-work. How exalting is their calling—how noble their pursuit—how sublime their avocation! Who dares to sneer at such a fraternity of noble, high-minded men? Who dares to cast odium on such an eminent and patriotic race? Their path is one of glory, ambition and honor, and it is their own fault if it does not lead them to the highest fame and renown.

THE REIGN OF ART.—In this wonderful age, Art lays her master touches on almost every thing. The ceilings over us and the carpets we tread on, are hallowed by Art. Art winds the railway through the mountains and the mud: makes her machines of wood and iron, to act as if with knowledge and annihilates space with lightning tamed down to the tutelage of a boy. Nothing is too lofty for her touch and nothing

too humble. A new proof of this old conviction, has just fallen under our notice, in the shape of a Cathartic Pill, from the Laboratory of that world renowned Chemist Doctor J. C. Ayer.

If we understand the subject, he has carried that article to the farthest perfection of which it is capable. Instead of employing Drugs in its composition, as we have always thought the necessary and only way, he has with consummate skill extracted the *virtues* of the medicine to be employed and combined them alone in their purity together. The composition is then mixed and rolled by machinery and steam power into a spheroid pill which is wrapped in an envelope of gelatine, for protection from the effects of weather or time, and then thickly coated with sugar, to serve as its passport over the palate. Notwithstanding all this labored perfection they are offered to the public at less than one cent each. However humble the department, we think this may be safely characterized as the consummation of Art in its line.—*Morning News, Balt.*

Table of Contents.

A Delicate Fabric.....	256
Agricultural Society.....	263
Agricultural Fairs.....	263
A few Hints on Budding.....	250
Crossing Sheep.....	267
Cut Fodder vs. Uncut.....	255
Disease in the eye of Horses.....	248
Draining and improving Lands.....	254
Destruction of Thistles and Dandelions.....	266
Farmers' Clubs.....	258
Great Triumph of American Skill.....	244
Good Horse Provender.....	255
Graham's Magazine.....	258
Hedges.....	258
Hints on Sowing Wheat.....	241
Judging of Animals at Fairs.....	264
Lilium Speciosum.....	261
Machinery in Farming.....	249
Mechanics.....	267
Making Bread.....	257
McCormick's Reaper.....	258
Our next State Fair.....	256
Packing Butter.....	252
Purification of Wells.....	256
Peterson's Magazine.....	258
Pickles.....	266
Premiums.....	258
Pure Native Iron.....	265
Sumatra Games.....	250
Small Farms.....	253
Stumps.....	258
Special Manures for Fruit Trees.....	262
Salt for Animals.....	265
The N. C. State Fair.....	257
The State Fair Regulation, &c.....	258
The Reign of Art.....	267
Toads.....	262
The Catawba Grape.....	260
Training Horses.....	245
The Winter Rest of Trees.....	251
Water Rams—Cement Pipes.....	247
Wintoring Sweet Potatoes.....	248
When should Timber be cut.....	249
Washing Silver ware.....	249
Wetting Brick.....	255
United States Ag. Society—Circular.....	252

CONSUMPTION

SUCCESSFULLY TREATED BY INHALATION OF MEDICATED VAPORS!

BY JOHNSON STEWART ROSE, M. D.,

FELLOW of the Royal College of Physicians, and for years Senior Physician in the London Royal Infirmary for Diseases of the Lungs.

In this age of progress, medical science has contributed her full share to the general welfare, and that which shines resplendent, the brightest jewel in her diadem, is her last and greatest gift,

Medicated Vapor Inhalation,

In the treatment of Consumption and kindred affections. The most absurd notions, narrow-minded prejudice contemptible ignorance, and unblushing quackery, have long existed in the treatment of Consumption. Men of skill and reputation as physicians have prescribed nauseous compounds to be taken into the stomach, to cure disease of the lungs, while the brazen-faced quack held up his nostrum as the only star of hope for the consumptive—if only enough of it were swallowed. The stomach, where no disease exists, being the receptacle of all this, is soon rendered unfit to perform its functions, and the health thus materially injured. All must see the absurdity, the positive injury of such a course; the disease is in the lungs, not in the stomach; then why, in the name of common sense, do you not apply medicine directly to the lungs? The advantage of Inhalation in Consumption and Throat Diseases is, that medicines in the form of Vapor are applied directly to the lungs where the disease exists; the stomach is thus left free to aid in restoring health, by administering to it healthy, life-giving food. There is no case so hopeless that Inhalation will not reach! The means, too, are brought within the reach of all, the manner of administering the Vapors being so simple, that the invalid is never required to leave home, where the hand of friendship and affection tends so much to aid the physician's efforts.

The Inhaling method is soothing, safe and speedy, and consists in the administration of medicines in such a manner that they are conveyed into the lungs in the form of vapor, and produce their action at the seat of the disease. Its practical success is destined to revolutionize the opinions of the medical world, and establish the entire curability of Consumption.

I earnestly appeal to the common sense of all afflicted with lung diseases, to embrace at once the advantages of Inhalation, and no longer apply medicine to the unoffending stomach. I claim for inhalation a place amongst the priceless gifts that nature and art hath given us, that "our days may be long in the land," and as the only

Art of Refuge for the Consumptive.

A method not only rational, but simple, safe and efficacious.

To many of my professional brethren throughout the Union I tender my acknowledgements for their frank and manly course in testifying to the merits of Inhalation. I shall be pleased to co-operate with them in offering to the afflicted the blessings of Medicated Vapor Inhalation in the treatment of Consumption.

One word for myself, in answer to those claiming to have introduced the practice, and to the tribe of imitators who, with brazen impudence, claim it as

their own. I both wrote in favor of Inhalation and practised it 15 years ago! The apparatus then used, with the medical agents employed, achieved only a partial success: I therefore did not claim for it then those miraculous powers which a long practice has since enabled me to give to it. Proof of this may be found in my work published in 1840.

Applicants will please state if they have ever bled from the lungs, if they have lost flesh, have a cough, night sweats and fever turns, what and how much they expectorate, what the condition of the stomach and bowels. The necessary medicines, apparatus, &c., will be forwarded to any part.

TERMS.—Five dollars consultation fee. Balance of fee payable when patients report themselves convalescent.

Recommendations by Physicians.

We, the undersigned practitioners in medicine, cheerfully and heartily recommend Dr. Rose's method of treating diseases of the Lungs and Throat, as the best and most effectual ever introduced into medical practice. Our convictions are based upon having several of our own patients, confirmed consumptives, restored to vigorous health, after a few months treatment by Dr. Rose. In the above named diseases the application of Medicated Vapors, inhaled directly into the lungs, may be justly considered a great boon to suffering humanity, rendering Consumption a perfectly curable disease!

Dr. Rose deserves well of the profession for his unwearied labors in bringing the Inhaling method to such a degree of perfection.

RALPH STONE, M. D.
JONAS A. MOTT, M. D.
CYRUS KINGSLEY, M. D.
W. M. B. AUSTIN, M. D.
OYVILLE UPSON, M. D.
GAVIN WETMORE, M. D.

DR. ROSE'S TREATISE ON CONSUMPTION.

Price One Dollar. Address
JOHNSON STEWART ROSE,
Office 531 Broadway, New York.

N. B.—The new postage law requires pre-payment of letters. My correspondence being extensive, applicants, to ensure replies, must enclose postage.

Money letters must be registered by the Postmasters—such letters only will be at my risk.
Oct. 1.

SUPERIOR STOCK FOR SALE.

THE SUBSCRIBER EXPECTING SOON TO remove from the State, offers for sale a number of Pigs of the SUFFOLK and ESSEX breeds. Also some beautiful half breeds of both stocks.

Also, some fine fowls of the Brama Pootra and Shanghai breeds. The white Shanghai he regards as far preferable to all other breeds, having tried, nearly all. Address,

J. R. GARLICK,
Murfreesboro', N. C.

May 1855.

GILBERT'S

PATENT IMPROVED WHEAT FANS.

The Subscriber, successor to McElwaine & Burnett, having located permanently at Henderson on the purpose of Manufacturing the above Fans, is now offering at wholesale and retail Fans on such terms as think will please. I challenge the world to produce

their equal, as many of the best planters having tried them do not hesitate to say that they *can't be beat!*

They will chaff sixty bushels per hour. The very best lumber and materials are used in making these Fans—the irons are all turned and polished smooth, so that they work easier than most Fans—are simple in their construction, but will CLEAN ALL KINDS OF GRAIN!

The Hoppers are large and only require the grain to be thrown into them and they feed themselves.

Don't be deceived by appearances. Some Fans are made at Henderson which resemble them, but unless my name is bronzed on them, they are not mine.

Having located a Branch at Graham, Alamance Co., he will furnish to the Planters in that and surrounding counties Fans at the same rate, delivered as heretofore from Henderson.

N. B. Every Fan is warranted perfect. Retail price \$30—a liberal discount made to the trade. I will also furnish to order Wheat Drills, Horse Powers, Threshers, Corn Shellers, Stalk Cutters, Chain Pumps, &c., of northern manufacture on the most liberal terms, all of which samples are kept constantly on hand.

I return my thanks to the citizens of Granville and surrounding counties, for the liberal patronage I have heretofore received, and which I shall endeavor to continue to merit.

C. BURNETT.

Henderson, N. C., June 1st, 1855.

4-551.

TO SOUTHERN AGRICULTURISTS.

An intelligent, steady and practical farmer, who has had 25 years' experience in the most productive wheat and stock regions of Maryland, offers his services as manager on some large estate in the South—he is perfectly familiar with the management of groves, and can furnish the most ample testimonials of his character from the highest sources in that State. His qualifications as a farmer and stock raiser are such as is rarely to be found any where.

"AGRICOLA," Washington, D. C.

THE ORANGE IMPROVED STUMP MACHINE.

PATENTED MARCH 6TH, 1855.

FRIENDS OF AGRICULTURAL IMPROVEMENT:—

Having just secured a patent on my IMPROVED STUMP EXTRACTOR, upon the crotch and steel-yard principle, I am free to say that I wish this Machine brought into general use, because I need some compensation for the pains I have taken to bring it to its present state of perfection, and because it is desperately needed—for much beautiful land in many States of the Union, is defaced by odious stumps. This Machine has no rival; its power is very great; its action very rapid, and hence, it may be made to hurl an acre of stumps from their dominion in a very short time.

I manufacture these machines at Orange, Mass., where I hold myself ready to furnish them, when ordered from any part of the country. The price will range from \$125 to \$150, according to extent of chain, and weight of iron. I should add, however, that the Machine is simple in structure, and with the Model I furnish, may be manufactured by any good and intelligent blacksmith.

My title: *Best Improved Patent, good for fifteen years*, covers the nation, and I am ready to sell Rights to towns, counties, and States, at rates altogether reasonable. Please apply at once: my prices shall be low, my terms of payment easy, and if it is wished, I will take real estate or other property in exchange.

Yours very respectfully, W. W. WILLIS.

Orange, April 1, 1855.

A few good AGENTS wanted to Exhibit and sell this Machine in different quarters of the Nation.

DR. STRONG'S COMPOUND SANATIVE PILLS

These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Scrofula, Salt Rheum, Fevers of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of **Piles**, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also

DR. STRONG'S PECTORAL STOMACH PILLS

A remedy for Coughs, Colds, Catarrh, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a deranged state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, in weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expectorant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Syrups, Balsams, or Sarsaparillas, that were ever made; and a simple trial of only one box will prove this important truth.

They promote Expectoration, Loosen the Phlegm, and Clear the Lungs and other Secretory Organs, of all morbid matter, and there is not another remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. **They Cure Costiveness, produce a good, regular Appetite, and Strengthen the System.**

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the *Planter's Almanac* GRATIS, giving full particulars and certificates of cures.

Both kinds of the above-named Pills are for sale in **Every Town and Village in North and South Carolina.**

And at Williams & Haywood, Raleigh, N. C. May 1855. 3-

TO PLANTERS.

THE UNDERSIGNED HAS BEEN appointed Agent for the sale of "KETTELLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of COTTON and CORN, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to its yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by **HENRY NUTT**, Agent for the State of North Carolina, at Wilmington. 3-

PURE MERINO SHEEP FOR SALE.

I HAVE A FEW YEARLING RAMS, AND Ewes, from one to three years old, which I will sell. Also three Rams older, and very choice. They can be sent to any part of the country with safety—For prices, &c., apply to **T. C. PETERS,**

Darien, Genesee Co., N. Y.

May 1855.

NORTH CAROLINA MUTUAL LIFE INSURANCE Company, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the **MUTUAL PRINCIPLE**, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$80, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 90 days after satisfactory proof is presented.

DIRECTORS.

CHARLES E. JOHNSON,	WM. W. HOLDEN,
WM. D. HAYWOOD,	WM. D. COOKE,
JAMES F. JORDAN,	R. H. BATTLE,
H. W. HUSTED,	WM. H. JONES,
WM. H. MCKEE,	F. C. HILL,
CHARLES B. ROOT,	SEATON GALES.

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JAMES F. JORDAN,	<i>Secretary,</i>
WILLIAM H. JONES,	<i>Treasurer,</i>
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WILLIAM H. MCKEE, M. D.	
RICH'D. B. HAYWOOD, M. D.	} <i>Consultation.</i>
WILLIAM D. COOKE,	
W. W. HOLDEN,	} <i>Executive Committee.</i>
CHARLES B. ROOT,	

J. HERSMAN, *General Agent.*

Communications should be addressed, (post paid) to **JAMES F. JORDAN, Secretary.**

NORTH CAROLINA

MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

DIRECTORS:

J. B. G. Roulhac,	Raleigh.
Henry D. Turner,	do.
J. R. Williams,	do.
T. H. Selby,	do.
C. W. D. Hutchings,	do.
James F. Jordan,	do.
James M. Towles,	do.
James E. Hoyt,	Washington.
Alex. Mitchell,	Newbern.
Joshua G. Wright,	Wilmington.
John M. Jones,	Edenton.
W. W. Griffin,	Elizabeth City.
F. F. Fagan,	Plymouth.
W. N. H. Smith,	Murfreesboro'.
H. B. Williams,	Charlotte.
Geo. A. Smith,	Milton.
O. F. Long,	Hillsboro'.
Joseph White,	Anson County.
Josh. Boner,	Salem.
A. T. Summy,	Asheville.

OFFICERS OF THE COMPANY.

J. G. B. Roulhac,	<i>President.</i>
H. D. Turner,	<i>Vice President.</i>
John C. Partridge,	<i>Secretary.</i>
John H. Bryan,	<i>Attorney.</i>
J. Hersman,	<i>General Agent.</i>

John R. Williams,	} <i>Executive Committee.</i>
T. H. Selby,	
C. W. D. Hutchings,	

This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam

(Gills and Turpentine Distilleries,) upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid.

J. C. PARTRIDGE, Sec'y.

Raleigh, Jan. 9th, 1855.

ENGLISH CATTLE, SHEEP AND SWINE.

ALSO Mules and Merino Sheep from Spain. Selected and imported on commission to any Atlantic sea port in America, by Thos. Betts & Co., at Liverpool and Herts, England.

Circulars containing the prices of all kinds of English Stock, and the expenses from England to America, including insurance can be received by applying personally or by post to G. M. Miller 81 Maiden Lane, New York City. Agent for

THOS. BETTS & CO.

FARMER'S HALL, RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855.

no. 1—tf.

AYER'S PILLS,

A new and singular y successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fever, Gout, Hu rous, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the hearth all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

DR. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

HON. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINTHROP, Ex-Speaker of the House of Representatives.

ABBOTT LAWRENCE, Minister Plen. to England.

† JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, DR. J. R. CHILTON, Practical Chemist, of New York City, endorsed by

HON. W. L. MARCY, Secretary of State.

WM. B. ASTOR, the richest man in America.

S. LELAND & Co., Prop'r of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been used, but evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded out of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should prove as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulae by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few would be taken if their composition was known! Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge of the subject freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by scientific men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal viscera to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their irregular action to health, and by correcting, wherever they exist, such derangements as are the first origin of disease.

Being sugar wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

Practical and Analytical Chemist.

LOWELL, MASS.

PRICE 25 CENTS PER BOX. FIVE BOXES FOR \$1.

SOLD BY

P. F. Pescud and Williams & Haywood, Raleigh, N. C. March 1855., 15—y.

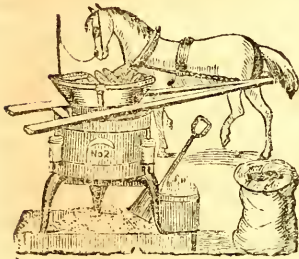
BORUM & MCLEAN,

No. 11 WATER-STREET,

NORFOLK, VIRGINIA,

Have the Largest Assortment of Agricultural Implements in the State; they are engaged largely in Manufacturing, and can furnish any variety of Implements at short notice:

SCOTT'S LITTLE GIANT CORN AND COB CRUSHER,



THIS Mill has doubtless obtained a more sudden celebrity for doing its work with extraordinary ease and certainty, than any other article of labor-saving machinery ever presented to the agricultural world: the merit of which consists chiefly in the peculiar arrangement of first breaking, then crushing and crumbling the cob at the centre of the Mill. Ear corn thrown into the revolving hopper is drawn to the centre while being broken or crushed. Thus lessening the strain upon both mill and team, by the chief work of crushing being thrown upon small centre parts by judicious application of the leverage power. The broken ears then pass crumbling down from centre to circumference by easy gradations; the chief labor being performed near the centre, materially lessening the strain and wear of the periphery and fine grinding surface of the Mill, which has but to complete the pulverizing of the already finely broken corn and

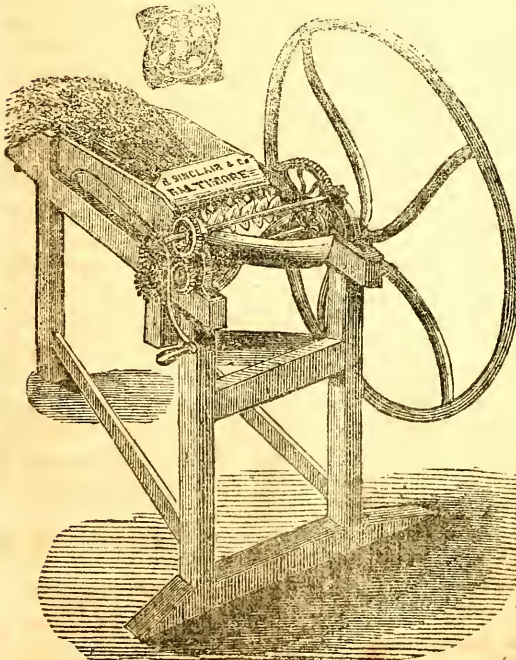
cob.

These Mills are sold at "Farmer's Head-Quarters," Norfolk Virginia, by BORUM & MCLEAN, at the following prices:

No. 2	Grinds 10 bushels per hour, with one horse, -	\$46 00
" 3	" 15 " " " two " -	57 00
" 4	" 20 " " " two " -	68 00

Two dollars deduction made on each size for Cash, upon delivery of the machine. A full stock of them always on hand, and orders filled promptly.

SCREW PROPELLER STRAW CUTTER.



This is probably as good and strong a Machine for cutting Shueks, Stalks, Oats, Straw, Fodder, etc., as any other Cutter ever made, a great number of them have been sold and they give general satisfaction.

Orders filled at "Farmers Head Quarters," at Factory prices,

11 inch Cylinder, - - - \$30 00
Large sizes for horse power, \$38 to \$45

Orders filled promptly, by
BORUM & MCLEAN,
11 Water-street, Norfolk, Va.

Wheat and Corn Fans.

Montgomery's Celebrated Wheat Fan, \$34

Bamborough's do do do No. 2, 30

No. 1, 32

extra, No. 1, 34

Sinclair's Fan for Corn, Oats, Wheat and other grain, No. 1, 28

do 2, 33

do 3, 38

Clinton's Small Fans, 13 @ \$20 each.

Giant's Patent Fans, all sizes, from 16 @ \$20 each.

Plows, Harrows, Cultivators, Straw Cutters, Fan Mills, &c., in great variety, made by us in the best manner, and well suited to the wants of Southern Farmers.

Orders for our Catalogue will be mailed, gratis, upon application,

BORUM & MCLEAN.

Norfolk, Va.

Aug. 1855,



THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

WILLIAM D. COOKE, PUBLISHER.

VOL. 1.

RALEIGH, N. C., NOVEMBER, 1855.

NO. 9.

Miscellaneous.

Nascent Manures.

This matter of mineral and vegetable manures, their real value, proper use, etc., can scarcely be overrated in its importance.

We find a learned essay on this subject from Dr. Stewart, of Baltimore in the *American Farmer*; and though we are not quite ready to embrace all the opinions of learned chemists on this subject, we think the following very valuable. The appropriation of simple gases, which these gentlemen deny, is not yet disproved in our judgment; but we hope soon to have the whole story from them, or one amply qualified to treat the subject, namely, the writer of the following:

Reasoning from analogy, all manures must be presented to the plant in the nascent state, in order to their assimilation; but a safer proposition, perhaps, would be, that many elements of plants, while they exist in their normal or natural condition, are as perfectly unassimilable, as is incapable of affording nourishment to man, as they are to animals.

A hundred illustrations of this law will at once occur to every intelligent mind; and the facility with which even inorganic compounds pass from the while in the nascent form, is familiar to all.

Every molecule of matter, whether composed of compound, or simple atoms, seems to

have a form of its own, and until it has assumed this form, or state of aggregation, it is in the nascent state, or in an allotropic condition.

While in this nascent state, its tendency to unite with other bodies which have an affinity for it, is wonderfully increased; indeed, it is often the only condition in which two substances will combine. The celebrated Faraday attached so much importance to this nascent, as contrasted with the normal condition, that a few months since he expressed the opinion that ozone is merely oxygen in the nascent, or allotropic condition.

Lime and magnesia when recently slacked, are capable of uniting more freely with other substances; if, however, the slacked lime or magnesia is kept for a long time, even although perfectly excluded from the air, it will gradually assume the form of granules, and subsequently these molecules will form crystals, or the lowest order of organisms; and these organisms seem to possess a degree of resistance to external force analogous to the resistance of the higher organisms; indeed, the more perfect crystals of the same substance, and in the same solution, will grow and become more perfect, at the expense of those which are irregular. Upon this principle, I suppose that crystals may be said to be approaching to the allotropic condition, or nascent state, while the perfect crystal is in the normal condition.

It may be said that a grain of sulfur is one of the causes of this, and a better illustration



is sand, or quartz, which is perfectly insoluble in its natural or normal condition, however fine the powder, even in some of the strongest acids. But sand or silica is frequently found in the nascent condition, and then it dissolves readily in water; moreover, it can be kept in this condition for years; but if heated to the temperature of 260 degrees it assumes its normal condition, and becomes perfectly insoluble even in acids; whereas before, it would dissolve in acids, alkalies, or pure water.

Lime and magnesia, while in the caustic state, are capable of converting sand into soluble silica; and this is perhaps one of the good effects of liming, especially when we consider the remarkable influence that soluble silica exerts in absorbing ammonia from the atmosphere, and also from ammoniacal manures. We may also account thus for the crumbling of stable walls, the moist condition of old walls, and especially those that are exposed to ammoniacal exhalations. Moreover, we have a plausible mode of accounting for nitre beds, and remarkable value of old plaster; also the purifying influence of 'white-washing,' if it is done with caustic lime, and not with whiting or carbonate of lime. Lime, while caustic and moist, in contact with sand, converts a small part of the surface of the grains of sand from the insoluble to the soluble silica; and this is the reason why caustic lime lime is necessary to the formation of good mortar, as it is not (as is almost universally supposed) a mere mechanical mixture of lime and sand, neither is it grains of sand cemented together by the induration of lime, but the actual solution of the surface of the grains of sand produces a still more intimate union.

Well, this soluble silica gradually absorbs from the atmosphere the ammonia, for which it has a remarkable affinity; and as ammonia is the vehicle of poisonous exhalations of disease, as well as the perfume of flowers, these exhalations are so concentrated upon the walls of hospitals, that it sometimes becomes necessary to remove the plastering, in order to get rid of Erysipelas and other diseases.

Nearly, or quite all of the nitric acid of commerce, was no doubt originally derived from ammonia, in the order above referred to; for, if my theory, as above stated, is admitted, then, every authority will sustain me in saying that old plaster contains ammonia, and this ammo-

nia is converted into nitric acid on the wall.—Salts of nitric acid can be seen by any one on the surface of old walls. Moreover, the leachings of old walls have frequently been used in the manufacture of gunpowder, and old plaster always enters into the composition of artificial nitre beds.

It will be readily admitted that silica can never enter the rootlet of a plant, however fine the powder, unless it is in solution, and that the finest powder of sand or silica differs as much in solubility from nascent silica, as sand differs from sugar. The importance, then, of soluble silica to grasses and wheat, and especially to corn; and, indeed, its value as manure has long been recognised; (see Liebig's Chemistry, Am. Ed. 1841, p. 200.)

It was first supposed that potash, was the vehicle for its conveyance to every part of the plant; but the modern idea is, that ammonia is the main instrument of its conveyance; certain it is, that it loses its base at the instant of its deposition on the stem; and if potash were the base, then it would be necessary that the potash be carried back again to the earth, and the plant would be constantly embarrassed by the excrementitious matter; whereas, the ammonia being volatile, evaporates, and leaves the glassy coating, or element of strength, on the surface of the stem. Thus, it is found that more ammonia is actually exhaled from plants than we ever give them in the form of manure; and it is strongly suspected that soluble silica is really the manure, while ammonia is merely the vehicle for the conveyance of soluble silica through the plant.

When the carcass of an animal falls in a field, the luxuriant grass or grain 'falls,' on account of the absence of the relative amount of soluble silica, or the excess of ammonia uses up at once all of this necessary element that is available.

Two years since, I manured two lands in the centre of my oats field, the one with Peruvian Guano, and the other with soluble silica, leaving a land unmanured between. The proportion of straw on the guanoed land was very much increased; but last summer, the same field was in wheat, and a corresponding diminution in the proportion of straw was noticed on the land that had been guanoed two years since; and what is more remarkable, the lands on each side of the guanoed land, averaged 746 lbs. more of wheat straw per acre, although no

manure of any kind had been applied to either since it was in oats. Whereas, the silicated land not only produced more straw than either of its unmanured neighbors, but also excelled the guanoed land in wheat nearly three bushels per acre, and ripened earlier than any other part of the field.

The difference between the silicated land and unmanured, averaged 1966 lbs., while it also produced nine and one-tenth bushels of wheat more than the adjoining unmanured lands.

A land of my oats field of last summer exhibited the same increase in the weight of the straw, although no silicates have been applied since it was in corn two years since.

But the most remarkable result was obtained in my corn field of this year, where the corn on the silicated portion averaged 93 lbs. per shock, while the part unmanured only weighed 42 lbs. per shock; each shock represented 64 hills of corn, and the average of 31 shocks was taken. This manure was applied in my presence, and I personally gathered and weighed the produce of each separate shock in the field, with my own hands; therefore, I can vouch for the correctness of the results. And now, can we not account for the well known and remarkable efficacy of dissolved bones on this principle, when compared with normal phosphate of lime, whether it be in the form of bone-ash, ground bones, or phosphatic guano?

Bones have been used with profit, at the rate of \$20 to \$30 per acre; and it has been repeatedly demonstrated that one bushel of dissolved bones, for immediate effect, is equal to five times as much ground bones; in other words, that one pound of nascent or soluble phosphate of lime, is worth more than five pounds of normal or natural phosphate of lime, or bone earth. It will be admitted that every acre of land on the face of the earth, contains from one-tenth of one, to four per cent. of lime and magnesia; and of only one-tenth of one per cent. at the depth of cultivation, even then, each acre must contain 1500 to 2000 lbs. of lime and magnesia. Now, it is manifest if 10, or even 30 bushels of dissolved bones were applied to an acre, the first rain would convert all of the free phosphoric acid, or bi-phosphates that they contain, into neutral, nascent sub-phosphates; and it is therefore nascent sub-phosphate of lime that is taken up and assimilated by the plant. Thus, we are enabled to account for the wonderful

effects of what are called in commerce, bi-phosphates, which really contain very little free phosphoric acid, but all of the phosphoric acid exists as natural nascent phosphate of lime.

The fact is, that dissolved bones are unmanageable as a manure in this country, [in England, bi-phosphates are applied in solution,] until reduced from a fluid to the form of a powder, by the means of ivory black, guano, or some less valuable diluent; and the universal distribution of carbonates of lime, etc., in these, converts nearly all of the bi-phosphates into neutral nascent phosphates or sub-phosphates. During the past summer I have been experimenting on two separate fields, with four of these compounds, two of which were made in New York, and two in Baltimore. The most remarkable results were obtained from experiments made upon a few hills of corn. But I will confine my statement to two series, where whole rows of shocks were compared with contiguous unmanured rows; the average of 23 shocks, each shock representing 64 hills, exhibited a difference of about 25 per cent.; or the manured weighed 56 lbs., while the unmanured weighed 42 lbs. per shock; and these manures were applied in my presence, at the rate of ten bushels per acre broadcast; and I gathered and weighed the corn in the field myself.

Now, it is most probable that no atom of free phosphoric, or bi-phosphate of lime, ever enters the rootlet of a plant without destroying it; and, having proved that a solution of bones would necessarily become precipitated in contact with any soil, we are driven to the conclusion that this precipitate or nascent sub-phosphate is the valuable manure; and we take it for granted that it will preserve the nascent form for some time in moist situations, as we know that moist oxide of iron will continue to preserve this form, as the antidote for arsenic, for weeks together. Ultimately, however, it also loses the nascent and assumes the normal form, and becomes so insoluble, that five times the dose is required, in order to afford the soluble material for the same proportion of arsenic. Thus it is with phosphatic guanoes and bone dust; none of them are absorbable in pure water, and when thus dissolved as sub-phosphates, they are converted into the nascent form, and more readily re-dissolved than before their solution.

The contact of a piece of wood or string has been known to hasten the solubility of the most insoluble substances; for instance, the inner part of the metallic worm of a still, opposite a wooden support has been known to dissolve in the distilled water passing through it, and the same remark is made with regard to hydrant pipes; the normal condition of insoluble bodies is then disturbed, and the allotropic or nascent condition produced, by contact with vegetable substances in a state of change; this, then, may account for the influence of organic manures, and indicates the philosophy of the modern plan of manuring in Europe, which is hauling out the manure on the field, load by load, as it is generated, instead of permitting it to ferment in heaps in the stable-yard. Now, query, would it not be still better to stratify it with powder of feldspar, phosphorite, or phosphatic guano, and concentrate this disturbing force of fermentation upon the elements, which, when reduced to the nascent state, are worth more than the one or two per cent. of alkalies, etc., in the manure itself.

It is still a question with physiologists whether nitrogen is ever assimilated by plants, much less by animals, in its normal condition; and it is a curious fact, that both the plant and animal may starve when fed on carbonaceous food exclusively, although both are bathed in an atmosphere containing four-fifths of nitrogen, which is perfectly useless to both, because not presented in the nascent form.

DAVID STEWART, M. D.,

Chemist of Maryland State Ag. So.

Balt., Jan. 24, 1855.

Weights and Measures,

OF VARIOUS FARM PRODUCTS AND OTHER THINGS
IN VARIOUS COUNTRIES.

In England and America, grain is generally rated by the bushel, though it is not the same measure; for here we use the Winchester bushel, which contains 2-150 42-100 cubic inches. There, since 1826, the legal measure is called the imperial bushel, which contains 2.218 cubic inches; so that 32 of their bushels are about equal to 33 of ours.

The following are the commercial weights of a bushel of different articles, viz: Wheat, beans, potatoes, and clover seed, 60 pounds. Corn, rye, flax seed and onions, 56 pounds.—Corn on

the cob, weighs 70 pounds. Buck-wheat, 52; barley, 48; hemp seed, 44; timothy seed, 45; castor beans, 46; oats, 35; bran, 20; blue grass seed, 14; salt, 50, according to one account, but Onondaga salt is 36; (the real weight of coarse salt is 85 pounds to the bushel;) dried apples 24; dried peaches 33, according to a table lately published in numerous papers, but according to our experience, both are wrong. We have seen thousands of bushels sold at 22 pounds to the bushel, which will measure about three pecks.

Heaping Measures.—Potatoes, turnips, and esculent roots, apples and other fruits, meal and bran, and in some States oats, are sold by heaping measure, which contains 2.815 cubic inches. The size of a Winchester bushel measure, is a circular ring with straight sides eight inches high and 18 1-2 in diameter. A box 12 inches square, with sides 7 1-32 inches high, will hold half a bushel.

Comparative Grain Measures.—Besides the difference between the Winchester and imperial and heaped bushels, before stated, there are a dozen or more local bushels. For instance, at Abington, Eng., 9 gallons; at Penrith, 16; at Carlisle, 24; at Chester, 32, *et cetera*. In France, the *setier* is as 4.427 to 1.099 compared with the imperial bushel; that is 4.427-1099 bushels. In Holland, the *mude* is as 3.157. In Prussia, the *schaffel*, 1.479. In Poland, the *korse*, 1.451. In Spain, the *fanega*, 1.599; that is, 99-1000 over a bushel and a half.

Barrel Measures.—Rice, 600 pounds; flour, 196 pounds; powder, 25 pounds; cider and other liquids, 30 gallons; corn, 5 bushels, shelled. By this latter measure crops are estimated, and corn bought and sold throughout most of the Southern and Western States. At New Orleans, a barrel of corn is a flour barrel full of ears. In some parts of the West, it is common to count a hundred ears for a bushel.

Ton Weight and Ton Measure.—A ton of hay or any coarse bulky article usually sold by that measure, is twenty gross hundred; that is 2,240 pounds; though in many places that ridiculous old-fashion is being done away and 2,000 pounds only counted to a ton.

A tun of timber, if round, consists of 40 cubic feet; if square, 54 feet. A tun of wine is 252 gallons.

A *Quarter of Corn*, is the fourth of a ton, or eight imperial bushels. This is an English

measure, not in use in this country, though very necessary to be known so as to understand agricultural reports. So of several of the following weights and measures.

A *Last*, of soap, ashes, herring, &c., 12 barrels; of corn, 10 quarters; of gunpowder, 24 barrels; of flax or feathers, 1,700; of wool, 12 sacks.

A *Sack of Wool* is 22 stone; that is, 14 pounds to the stone, 308 pounds.

A *Boll of Wool* is the same weight.

A *Pack of Wool* is 17 stone 2 pounds—240 pounds, a pack load for a horse.

A *Tod of Wool* is 2 stone; that is 38 pounds, 6 1-2 tods, 1 wey, and 2 weys a sack.

A *Clove of Wool* is 7 pounds, or half stone. Recollect, a stone is 14 pounds, when talking of wool, feathers, &c.; but when applied to beef, fish and other meats, it is only eight pounds.

A *Truss of Hay*, new, 60 pounds, old, 56; of straw, 40 pounds. A load, 36 trusses.

A *Firkin of Butter* is 56 pounds; a tub, 84.

A *Scotch Pint* contains 105 cubic inches, and is equal to 4 English pints.

A *Farlot of Wheat* is 21 1-4 Scotch pints.

Troy Weight and Avoirdupois Weight.—One hundred and forty-four pounds avoirdupois, are equal to 175 pounds Troy—175 ounces Troy, are equal to 192 ounces avoirdupois. All precious metals are bought and sold by Troy weight.

The Kilo-gramme, of France, is 1,000 grammes, and equal to 2 pounds, 2 ounces, 4 grains avoirdupois.

A *Chaldron of Coal*, is 58 2-3 cubic feet, generally estimated 36 bushels. A bushel of anthracite coal weighs 80 pounds, which makes the weight of a chaldron, 2,880.

Weights of a Cubic Foot.—Of sand or loose earth, 96 pounds; compact soil, 124; strong or clayey soil, 127; pure clay, 135; mixture of stones and clay, 160; masonry of stone, 205; brick, 125; cast iron, 450; steel, 480; copper, 486; lead, 769; silver, 654; gold, 1,200; platinum, 1,218; glass, 180; water 62; oil, 59; cork, 15; oak timber, 73; mahogany, 71; air, 0.0753. In the above, fractions are discarded.

A *Bale of Cotton*, in Egypt, is 90 pounds; in America, a commercial bale is 400 pounds, but is put up in different States, varying from

280 to 720 pounds. Sea-Island cotton is put up in sacks of 360 pounds.

A *Bale of Hay*, is 360 pounds.

A *Cord of Wood*, is 128 solid feet, usually put up 8 feet long, 4 feet wide, and 4 high.—In France, a cord of wood is 576 feet.

A *Stack of Wood*, is 108 solid feet; 12 feet long, 3 high, and 3 wide. A *skid* of wood is a round bundle of small sticks, 4 feet long, girted for a one-notch, 16 inches, two-notch, 23 inches; three notch, 28 inches; four-notch 33 inches; five-notch, 38 inches. A *billet* of wood is similar to a skid, being 3 feet long, 7, 10, and 14 inches round. They are sold by the score or hundred. A score is 20 in number.

Fagots are bundles of brush 3 feet long and 2 feet round. A load of fagots is 50 such bundles.

A *Quintal* of wood is 100 pounds.—All fuel should be sold by the pound.

A *Perch of Stone* is 25 cubic feet, piled, or 22 in the wall.

Line and Sand to a perch of stone. Three pecks of line, and two-thirds of a one-horse cart load of sand.

Weight of Lime.—A bushel of limestone weighs 142 pounds; after it is burned, if weighed directly from the kiln, 110 pounds; showing that 67 pounds of carbonic acid and water have been driven off by fire. This bushel of lime will absorb 20 pounds of water, gradually applied during several days, and will then be in a state of dry powder, weighing 93 pounds; showing that 18 pounds of water have been converted into a solid, dry substance.

To Measure a Ton of Hay.—One hundred cubic feet of hay in a solid mow or stack, will weigh a ton.

To Measure Cattle to Compute Weight.—Ascertain the girth back of the shoulders, and the length along the back, from the square of the buttock, to a point even with the point of the shoulder blade; say the girth is 6 feet 4 inches, and the length, 5 feet 3 inches, which, multiplied together gives 31 feet. Multiply this by 23, the number of pounds allowed to the foot, between 5 and 7 feet girth, and the result is 713 pounds, for the number of pounds of beef in the four quarters. Girths from 7 to 9 feet allow 31 pounds to the foot. Cattle must be fat and square built to hold out weight.

To Measure Grains in Bins, multiply the

length and width together, and that product by the highest in cubic inches and divide by 2.150, and you have the number of bushels.

To Measure Corn in the Ear, find the cubic inches as above, and divide by 2.815, the cubic inches in a heaped bushel, and take two-thirds of the quotient for the number of bushels of shelled corn. This is upon the rule of giving three heaping half-bushels of ears to make a bushel of grain. Some falls short and some overruns this measure.

Board Measure.—Boards are sold by face measure. Multiply the width in inches of any number of pieces of equal length, by the inches of the length. Divide by 144, and the quotient is the number of feet, for any thickness under an inch. Every fourth inch increase of thickness, adds a fourth to the number of feet in the face measure.

Land Measure.—Every farmer should have a rod measure, a light, stiff pole, just 16 1-2 feet long, for measuring land. By a little practice he can learn to step just a rod at five steps, which will answer very well for ordinary farm work. Ascertain the number of rods in width and length of any lot you wish to measure, and multiply one into the other, and divide by 160, and you have the number of acres, as 160 square rods make a square acre. If you wish to lay off one acre square, measure 13 rods upon each side. This lacks one rod of being full measure.

Government Land Measure.—A township is six miles square, and contains 36 sections, 23,040 acres. A section, one mile square, 640 acres. A quarter section, half a mile square, 160 acres. As this is 160 rods square, a strip one rod wide or every rod in width is an acre. A half quarter section, is half a mile long, north and south, almost universally, and a fourth of a mile wide, 80 acres. A quarter section is one-fourth of a mile square, 40 acres, and is the smallest-sized tract, except fractions, ever sold by the government. The price is \$1.25 an acre.

Measure of a Mile.—While engaged in the compilation of this valuable article, we received the following table from a friend in Maine, who, in remarking upon the indisposition of some persons to take an agricultural paper, "because," they say, "it pertains to the system of book farming," says some object to take *The Plow* because "they can't afford it. We

are sorry for their ignorance, and stupid determination to remain in it. This single article, which is less than the fiftieth part of what we give them for fifty cents, would cost any one of them fifty times the price of *The Plow*, in labor, to glean this information from fifty dollars' worth of books. Our measure of distance is by the standard English mile, which is 5,280 feet in length, or 1,760 yards, or 316 rods.

An English geographical mile, is equal to 2,025 yards.

Ancient Scottish mile	1 mile Eng. and	224 yds.
" Irish	" 1	" 480
German short	" 3	" 1579
" long	" 5	" 1326
Hanoverian	" 6	" 999
Tuscan	" 1	" 48
Russian	" 4	" 1197
Danish	" 4	" 1204
Dantzic	" 4	" 1435
Hungarian	" 5	" 313
Swiss	" 5	" 353
Swedish	" 6	" 1140
Arabian	" 1	" 380
Modern Roman mile	132 yards less than Eng-	lish.

LENGTH OF LEAGUES.

French posting league	2 miles Eng. &	743 yds.
French	" 3	"
English	" 3	"
Spanish judicial	" 2	" 1115
Portugal	" 3	" 1480
Flanders	" 2	" 1584
Spanish common	" 5	" 376

LENGTH OF OTHER MEASURES.

Persian Parasang,	3 miles Eng. and	806 yds.
Russian Werst,	6	" 593
Turkish Bein,	1	" 66

A German geographical mile is equal to four English miles, or 8100 yards.

SCRIPTURE MEASURES.

"*A Sabbath Day's Journey* is 1.155 yards—about two-thirds of a mile. A *day's journey* is 33 1-3 miles. A *reed* is 10 feet, 11 1-3 inches. A *palm* is 3 inches. A *fathom* is 6 feet. A *Greek foot* is 12 1-2 inches. A *Hebrew foot* is 1.212-1000 English foot. A *cubit* is 2 feet.—A *great cubit* is 11 feet. An *Egyptian cubit* is 21.855-1000 inches. A *span* is 16.944-1000 inches.

As the superficies of all our States and Counties are expressed in square miles, it should be borne in mind that the contents of a mile is 640 acres.

Number of Square Yards in an Acre.—English, 4,840; Scotch, 6,150; Irish, 7,840; Hamburg, 11,545; Amsterdam, 9,722; Dantzic,

6.650; France, (hectare,) 11.960; Prussia, (morgen,) 3.053.

Manure Measure.—This is generally estimated by the load, which is just about as definite as the phrase about as big as a piece of chalk. It ought to be measured by the cubic yard or cord. A *cubic yard* is 27 cubic feet, each of which contains 1,728 cubic inches. A *cubic cord* is 128 cubic feet. As the most of farmers have an idea in their minds of the size of a pile of wood containing a cord, they would readily compare that with the quantity of manure, if stated in cords. Every cart or wagon box, before it leaves the maker's shop, ought to have the cubic feet and inches it will contain indelibly marked upon it. This would enable the owner who has read *The Plow*, to calculate the amount of his load of grain, roots, earth, stone or manure.

Weight of Manure.—A solid foot of half rotted stable manure, will weigh, upon an average, 56 pounds. If it is coarse or dry, it will average 48 pounds to the foot. A *load of manure*, or 26 cubic feet, of first quality, will weigh 2,016 pounds; of second quality, 1,728 pounds.

Weight to the acre. Eight loads of first kind, weighing 16,128 pounds, will give 108 pounds to each square rod, and less than two and a half pounds to each square foot.—Five loads will give 63 pounds to the rod. An acre containing 43,560 square feet, the calculation of pounds per foot, of any quantity per acre is easily made.

The Measure of Mind, may be considerably expanded in every youth who will carefully study these pages, which we have prepared with a measure of labor especially for the benefit of all who measure the capacity of our intellect to give useful information by our monthly chronicle of matters calculated, or at least intended, to elevate the minds of our readers immeasurably above those who are still groping in the darkness of wilful ignorance, because of their misjudged economy in not patronizing agricultural papers and schools.—*The Plow*.

CONSOLATION.—It is a farmer's consolation to know, that, without his products, there would be no commerce, no civilization, no laws, no religion, no nations, no people.

Plow deep and reap abundance.

Fish Ponds in South Carolina.

A correspondent of the *Fairfield* (S. C.) *Herald* says:

MR. EDITOR: Seeing a statement in the *Soil of the South*, taken from the *Southern Cultivator*, that a Mr. Hill, living near Augusta, Georgia, had succeed in raising fish in a pond of his own construction, I concluded, as Van Buren once said of General Jackson, "to follow in his footsteps." Accordingly, having within a few hundred yards of my house a favorable spot, (a small narrow gorge in the hill with several bold springs breaking forth) I commenced in December last, with one fellow to dig out in the upper side and throw up a dam on the lower, so as to enclose a square space of seventy by forty-five feet. This I accomplished at a cost of twenty-five dollars. In the deepest part of this pond, I have four feet of water, and two in the shallowest. About two months since I placed in this pond some six or seven hundred perch and a few small brim and mormouths.—The latter being very small, will not deposit their eggs till next spring. The perch, however, have already commenced bedding and hatching, and the pond is now literally alive with thousands of the finny tribe, from those scarcely perceptible to the naked eye, to those an inch long, &c. These fish I feed with crumbs of bread, hommony, shreds of meat, and the entrails of fowls, pigs, birds, rabbits, &c., chopped fine.

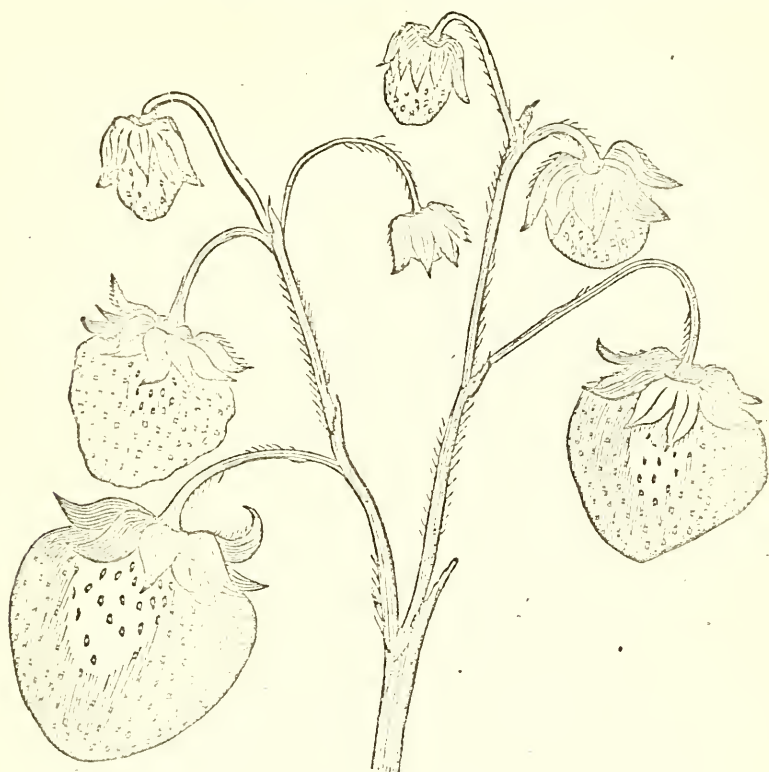
I am very sanguine of success, and hope ere long, not only to be able to report the fact, but to furnish my table constantly with this new rare delicacy in this region.

It strikes me, Mr. Editor, that every planter ought to have this necessary (for it will prove a necessary as well as luxury to have an abundance of fresh fish always at command) about him, especially when it can be had, for so small an outlay of labor and money.

As the propagation of fish, is just now, exciting a good deal of attention, will you be so good as to publish such facts occasionally, as you may find in your exchanges, calculated to throw light upon the subject, and oblige

A SUBSCRIBER.

P. S.—If any more of your subscribers are disposed to try their luck in this line, I will take pleasure, if I succeed, in furnishing them next spring with a start from my pond.



Goliah Strawberry.

The late A. J. Downing, a short time previous to his death, had a variety of strawberry sent to him by Messrs. Hogg & Son, Nurserymen of New York, called "Goliah," the bearing qualities of which are described as follows :

A bed 36 feet by 9 feet, six years old, produced the last season 90 quarts of fine large fruit; and a bed 36 feet square, three years old, in which the plants were 2 1-2 feet apart, produced 255 quart of high colored fine flavored fruit.

HOVEY'S SEEDLING.—This variety has the best reputation, for general cultivation. Mr. Peabody, the horticultural editor of the "Soil of the South," says :

It is one of the finest of all varieties. The vines are unusually vigorous and hardy, when properly cultivated, the fruit is always of the largest size and finely flavored. It is now generally disseminated, and has every where proved superior, for all general purposes, to any of the large fruited kind. The leaves are large, rather light green, and the fruit stalk long and

erect—fruit very large roundish oval, or slightly imbedded, flesh firm, with a rich agreeable flavor. It commences ripening in favorable season—the first of May—and continues, if seasonable, or if regularly watered, to bear for several months. The flowers of this variety are pistillate, and in order to insure a good crop of fruit it is necessary to place a staminate variety in the vicinity, say every fourth row, and for this purpose the Early Scarlet will be found one of the best.

McAvoy's Superior.—This is a new variety that originated in, or near Cincinnati, and which bids fair to become very popular. Mr. Barry, the experienced nurseryman of Rochester, and editor of the Horticulturist, says :

McAvoy's Superior, the strawberry to which was awarded the Cincinnati Horticultural Society's premium of \$100 in 1851, seems fully to sustain its reputation East as well as West. Mr. Hovey, the originator of Hovey's seedling, alone denies its superiority, and even doubts the judgment of the Society in giving it a pre-

mum. Specimens were exhibited by Mr. Cope at the Pennsylvania Horticultural exhibition measuring five inches and a half in circumference. The Society's Committee reported the flavor as "exquisitely fine" and quality as "best," a character good enough for any fruit of such extraordinary size.

Longworth's Prolific, Schneike's Pistillate and McAvoy's No. 1, are all highly recommended both by the Cincinnati and Philadelphia Committees as worthy of general cultivation.

The varieties above mentioned, with Hovey's Seedling and Burr's New Pine, furnish an ample list for the cultivator to select from, and when carefully attended to, will reward all the labor they require, more than an hundred fold. No fruit is more grateful, or rewards the attentive cultivator more bountifully than the strawberry.

Turpentine.

HINTS FOR THOSE ABOUT TO ENGAGE IN ITS MANUFACTURE. SITUATION.

Select your plantation as near a Distillery as you can; but you may do a very profitable business six or seven miles off, if the country is favorable for hauling. If the Distillery is on a river, Turpentine may be hauled two or three miles and rafted down forty or fifty miles, cheaper than to haul to the Still over six or seven miles. Yet persons already settled on thin pine lands, can do better to make Turpentine and haul it ten or twelve miles, than at anything else they make for market.

TIMBER.

The best trees are young, thriving, on pretty good soil, of quick growth, having the most sap-wood. If found on low, level or moist lands, they will yield all the better. Dry seasons are unfavorable for a large crop of Turpentine, and, of course, trees on lands that suffer easily from drouth, are least profitable.—Old Yellow pines run badly, and are only worth boxing when standing amidst better timber.

The thicker the growth stands the better, as close forests are less injured by hard winds than those more open, while the hand has less ground to walk over in attending his task.—Forests that will not afford a task of 12,000 boxes on 200 acres or less, are hardly worth working, unless they are very near the still, or water carriage to it.

BOXING.

As the future profit of the business depends chiefly on doing this part of the work well, let it be carefully attended to, observing the following instructions:

1st. In our climate [Florida and Southwestern Georgia] this work must be done between the 1st of November and the 1st of March, or a little later if the spring is backward and cold, and the Turpentine does not begin to run.

2d. The boxes must be cut *low down*—in small trees within six or eight inches of the ground, and ten or twelve inches in large trees. This will be at the swell of the roots, where the sap-wood is deepest, and the tree least weakened by the cut, and because the drip is more certain to fall into the box when it is cut in the projecting wood. And for this last reason, when the tree is not upright, a box must never be cut on the side to which it leans.

3d. The box should be from eight to fifteen inches long, measuring across the tree, according to its size. The lower edge or rim of the chop must be a level cut, very smooth, and have a down slope inwards of two or three inches below the outer edge. The depth from three to four inches, capable of holding a quart or more, unless in a small tree. As a general rule, the cut should extend very little into the heart-wood.

4th. The size of the tree determines the number of boxes it will bear and keep healthy. Trees under a foot thick should have but one box; those from twelve to twenty inches thick, two boxes, and never more than three in any tree. Of course, where the trees are scattering it may be better to cut more boxes, even if the trees do not last as long, than to lose too much time with your hands.

5th. The task for prime experienced hands is from 450 to 500 boxes a week, or 75 to 80 a day. And some expert hands will gain a day and do their work well. Such hands should be encouraged by receiving pay for extra work. But most beginners will not cut at first more than 50 boxes a day, and there is nothing gained by tasking them too high, until they have got well used to the proper shape and size of boxes.


CORNERING.

As soon as you stop cutting boxes, the hands should be set to cutting corners to them. This is done by a straight cut four or five inches up

the tree from each corner of a box, and is usually done with two blows of the axe, taking out a chip half or three quarters of an inch deep, which makes a channel to catch the Turpentine at the corners of the box, and serves as a guide for the chipping afterwards. A hand will corner 500 to 600 boxes a day. The Turpentine from the faces and corners of new boxes will fill them, without further work, for your first

DIPPING.

This part of the business generally begins about the first of April, a little earlier or later according to the season.

 But before proceeding to dip, or even to corner your boxes, each task, where there are no natural boundaries, should be marked off by blazing a line of trees. And every task should be further divided by rows of stakes, fifty yards apart, crossing it both ways, from side to side, which will cut it up into squares of about half an acre. Without this the overseer of several hands cannot possibly inspect their work with any accuracy; nor can the hands, however faithful, avoid skipping a great many boxes in *cornering*, *chipping* and *dipping*.

1st. Before you begin to dip, place your empty barrels, thirty-five or forty to the task, at convenient distances, all ready to receive the Turpentine.

2d. Each hand will require two buckets, holding four or five gallons, so that while one is dripping into the barrel he can work with the other and lose no time. The implement for dipping is made of iron or steel, something like a trowel, with a wooden handle, the blade flat, six inches wide and nine or ten long, with a rounded point, thin at the edges, and a quarter of an inch thick in the centre, and joining the handle.

3d. Dipping must commence as soon as the boxes are pretty well filled, charging the hands to watch them, while going over their tasks to cut corners or to chip, as trees run very unequally, and many will overflow before the rest are full.

4th. The number of dippings in a season vary from four to seven as the extremes. Below five, during the first two years, is looked on as poor, and six as very good. An early or backward spring or fall—long drouths during which the trees almost stop running—or heavy driv-

ing rains which fill the boxes with water and float out the Turpentine—all have their effect on the number of dippings—which depend otherwise on the frequency and care with which chipping is done. As the plantation grows older, and the chipping extends higher up the trees, you get fewer dippings of *soft* Turpentine, and a greater proportion of *hard* or *scrape*.

5th. It is not usually necessary to gather the scrape separately, until the second winter, after the boxes stop running. It will then be nearly equally in bulk to two dippings. After that it must be gathered every winter, the bulk increasing the longer the trees are tended.

6th. For collecting the scrape, instead of buckets, it is better to use a box 15 or 16 inches square and 10 inches deep, supported on two short legs, so as to rest against the tree. The best implement for gathering scrape is a socket spade, so that the length of handle can be varied with the height of the work. The hard scrape will require to be trodden into the barrels.

7th. A hand should dip 1,800, to 3,000 boxes a day, or fill five or six barrels, so as to get over his task in six or eight days. It will require more time to collect the hard Turpentine.

CHIPPING.

Next to careful boxing, the length of time that your trees will continue to yield, will depend upon the manner in which chipping is done.

1st. The instrument used is called a "hacker" or "shave" from its resemblance to a cooper's round shave, only that the cutting part should be shaped to a rounded point, an inch, or three quarters in diameter, and be supported on a strong spike, to be inserted in a handle of convenient length, according to the height of the chipping.

2d. Take care that the chip extends across the tree no wider than the box, and for new or awkward hands it will save much waste to have perpendicular lines drawn up the tree from each corner of the box.

3d. From each of these lines the chip should be cut in a down slope towards the centre of the box. Each fresh chip to be cut at the upper edge of the old one, about a quarter of an inch deep into the wood. A narrow chip or cut will bleed as freely as a wide one—half an

inch is sufficient. And by this means your trees can be worked longer. If trees are skillfully chipped they will last eight or ten years.

4th. A good hand will chip over his task once a week. And, as it is important to have it done by the strongest and most expert hands, these should be kept at it regularly through the season—while women or inferior hands can dip very well. One hand can dip four tasks, while the three best hands are kept busy chipping, and should go over the whole four or five times between each dipping. On this plan the boxes first full can be attended to without interrupting the chippers.

HAULING.

One hand strong enough to load, with a pair of good mules and suitable wagon, will haul the Turpentine dipped by ten hands, an average distance of three miles—with spare time for hauling provisions, empty barrels, &c. And in the winter can be employed in hauling barrel staves, plowing in oats, or preparing ground for early peas and potatoes—so as to provide a large part of their own forage, for himself and team.

BARRELS.

1st. The barrel is made 32 inches long, including the chimes, and the head about 17 inches across, with a little bulge in the middle.—The staves and heading of pine, to be three quarters or seven-eighths of an inch thick, secured with six strong wooden hoops.

2d. A barrel of Turpentine must weigh 280 pounds, and any over or under-weight is added or taken off, as the case may be, in calculating all sales. No allowance for weight of barrel.

3d. A cooper's task, when working by the day or month, is five barrels. His price is twenty-five cents a barrel for making when all materials are found him—and when he finds all, from thirty-one to thirty-seven cents a piece.

4th. Heading and staves of heart pine are worth \$5 a thousand. Sap staves one-fourth less, as they are only fit to hold the hard Turpentine or scrape. They should be got out and hacked up and dried two or three months before being worked up. Hoop poles, about six feet long, of hickory, white-oak or water oak, are worth 20 to 25 cents per hundred, delivered.

5th. In a gang of hands getting Turpentine, every fifth man may be a cooper, and will be

employed the year through in providing his own materials and keeping the others supplied with barrels.

GUARDING AGAINST FIRE.

The evil consequences of getting a Turpentine plantation on fire are so great, as to justify the labor of hoeing around the boxes, so as to clear away all the grass and pine straw to a distance of four or five feet. This will employ a hand four or five weeks in the winter. The State ought to protect this important interest by enacting severe penalties against those who set out fire where it can extend among trees boxed for Turpentine.

GENERAL REMARKS.

The Turpentine business is considered a very healthy employment for hands. It may be carried on with little capital, on lands too poor for cultivation, and is, therefore, well suited to persons of small means. If there is one hand, in the poorest family, able to cut boxes and chip them afterwards, the dipping can be done by women and half-grown children. A poor family living near a Still or river may make something, even if they hire the hauling.

On the other hand, no business makes better returns for common labor, take one year with another, not even the culture of cotton and tobacco, especially when the amount of capital employed is taken into consideration. A prime experienced hand, in a plantation newly opened, has gathered \$600 or \$700 worth of Turpentine in a year, leaving a nett sum of \$400 or \$500, after all deductions for barrels, hauling, provisions, &c. Two hundred dollars per hand, clear of all expenses, including wages to an overseer, is a very moderate result for an average lot of hands.

The usual price for cutting good boxes is \$1 per hundred, and food for the hand.

Twelve thousand boxes are an average task, in chipping and dipping. Extra prime hands have tened as high as fifteen or sixteen thousand, but ordinary hands will not do justice to more than ten thousand.

Good trees will yield about three barrels to the thousand boxes at each dipping, for the first three years, one sixth of this being *hard* or *scrape* the second year, and one-fifth the third year. The proportion of *scrape* increases as the chipping extends higher up the tree, until it makes half the crop, while the dippings of *soft* Turpentine will be reduced to three or

even two a year. It will, therefore, be necessary to add some new boxes to the task every year, after the fourth, to keep up the profitable business. In young, thrifty trees this may be done without increasing the bounds of a task, if the number of boxes was limited at first, as previously directed.

Virgin dip is the name given to all Turpentine gathered the first year from new boxes.—The first three dippings make much the brightest and best rosin, and on this account is worth fifty or seventy-five cents a barrel more than

Yellow dip, which is the name of all soft Turpentine taken from the boxes after the first year.

Hard or Scrape is the name for the Turpentine which hardens on the face of the chipping and never reaches the boxes. This makes a pretty fair rosin, but yields not more than a third of the quantity of spirits, and is worth about half price.

The evaporation of spirits from all soft Turpentine is very rapid in hot, dry weather; and this makes it important to dip and deliver it at the Still without unnecessary loss of time.

Virgin dip will yield about five and a half gallons of spirits to the barrel (of 280 pounds,) for the first three dippings, and from five and a half to six gallons later in the season.

Yellow dip, if delivered early, will turn out six to six and a half gallons. The scrape rarely makes as much as three gallons, very often not more than two or two and a half to the barrel.

On an average, all kinds will make two barrels of rosin from three of raw Turpentine.

The Distiller, therefore, will have one-third of his barrels surplus, which, with slight repairs, will serve as well as new ones for future dippings.

When Virgin dip is worth \$2.50 or \$2.75 a barrel, Yellow dip is worth about \$2, and the Scrape about \$1.25 a barrel.

To justify the distiller in paying the above prices, spirits of Turpentine should be worth 40 cents a gallon in the New Orleans market, upon the supposition that the entire expense from the Still does not exceed eight cents a gallon on spirits, and 40 cents a barrel on rosin. When spirits are selling in New Orleans at 36 cents, the raw article is worth 20 cents a barrel less, at the Still, at the same rate of ex-

pense in sending the manufactured article to market.

The distiller incurs great expense in the single article of spirit barrels. These must be iron bound, made in the best manner, of seasoned white-oak, and well coated within with glue, to prevent evaporation. They should contain from 40 to 45 gallons, and when ready for use cost little short of \$2 a piece. As there must be one spirit barrel provided to every seven of soft Turpentine, the demand for these barrels will of itself open an extensive new branch of business. Let these, by all means, be made at home.

A word more at the close. It is said above that a Turpentine plantation will last eight or ten years. This is meant for Florida and South-western Georgia. In North Carolina with careful working, it lasts 12 or 14 years. And then begins the business of making Tar from trees exactly prepared for it, by this previous culture. This is nearly as profitable as making Turpentine, and will furnish employment for several years longer.

REMARKS.—We are under particular obligations to John M. Potter, Esq., of Decatur county, Ga., for a pamphlet containing the foregoing information. We do not know who is the author, but doubt not the article will be acceptable to many persons seeking information on this important subject.—*Eds. Southern Cultivator.*

The Destroyers of our Grain.

In looking over our Wheat reports to ascertain, if possible, the relative amount of damage the crop has received from each class of the prevailing destructive insects, we have been surprised at the confusion of terms or names used in the descriptions. Indeed, there seems to be no intelligent comprehension of the difference between these various insects. Thus, from the same town where all the injurious results appear to be traceable to the same cause, we have one writer saying, "We shall lose half our crop by the *Weevil*;" another says, "The *fly* is doing us immense harm;" and another still—more cautious in making a distinction—writes, "Much injury was feared from the *insect*, but it will be less than was anticipated." These

three reports from a single town are a fair sample of those from the country at large.

It would materially assist investigations upon these insects, and also convey a more definite idea of the character and amount of injury to be estimated, if editors and all others reporting upon this matter, would state exactly what kind of "insect" is at work in their several localities. To facilitate such a course we will give a brief description of some of the more generally destructive insects that prey especially upon their wheat crop. Among these are the Grain Weevil, the Hessian Fly, the Clear-winged Fly, or Wheat Midge, several varieties of Grain Moth, the Chintz or Chinch Bug, &c.

The Grain Weevil (*Calandra Granaria*, or *Carculio Granarius* of Linnaeus.)—There is a wrong impression as to the character of this insect, and especially in reference to the time of its chief depredations. Quite early in the Spring, while wheat was not yet in blossom, reports came from some interior counties of Michigan that the weevil was thus early committing extensive depredations. From many other localities we heard similar reports, but a little later in the season. These were founded in misconception, for the truth is the weevil proper preys only upon the grain, commencing its ravages about the time of its ripening, and continuing them long after it is gathered into the granary; hence the name of grain or granary weevil.

The grain weevil in its perfect state is a dark or pitehy red, winged beetle or bug, about a line and a half, or one-eighth of an inch long. It has a slender proboscis or snout, curving a little downwards. The thorax, or chest, constitutes about one-half of its body, and is nearly as large as the abdomen, or belly, lying back of the middle ring. The thorax is punctured with a large number of holes, giving it a rough appearance. Over the abdomen are delicate wings, which are shielded by wing-covers, having lines or furrows upon their upper surface running parallel with their length. The wings do not entirely cover the tip of the abdomen. The female punctures the ripening or ripened grain with her beak or rostrum and deposits one and sometimes two eggs. From the egg is hatched a grub or worm, which eats its way into the grain, closing up the aperture behind it with excrements so that it lies perfectly shielded from external injury. No mechanical action short of

crushing the kernel can disturb the destroyer. They are effectually destroyed by kiln-drying the grain. This worm or grub grows to about one-twelfth of an inch in length; its body is white and soft, with nine rings around it. The head is small, round, yellow colored, and provided with cutting instruments. Arriving at maturity, which is not till after the flour portion of the wheat kernel has been principally devoured, this worm or larvæ assumes a nymph or chrysalis state, (like that between the worm and the butterfly,) and within two weeks after, the perfect weevil is formed, which eats its way out through the shell, and goes forth to deposit its eggs in turn upon other sound kernels. They are very productive, a single pair often multiplying to five or six thousand in a single year. Both the perfect insect and the grub feed upon the grain.

The Hessian Fly, (*Cecidomyia destructor*), is so named because introduced, or supposed to have been, by the Hessian soldiers employed by the British during the Revolutionary war. It was first discovered in the vicinity of New York from which point it extended in all directions, its usual rate of advance being from 15 to 25 miles a year. The full grown Hessian Fly is nearly the size of a small musquito, which it resembles in general form. It has, however, no bill for sucking blood, and has proportionately a larger thorax or chest, and a smaller abdomen or belly than the musquito. There are two broods hatched annually from eggs deposited in September and May. The full-grown fly deposits its eggs, which are very small, reddish grains, in the upper channels of the wheat leaf, soon after the stalk begins to branch. As this takes place in Sept. or early in October, late sown wheat usually escapes the Autumn egg. These eggs hatch out in about 15 days, producing a small worm which works its way down between the leaf-sheath and stalk to a point below the surface of the ground, where, in the form of a white or spotted maggot, it lies concealed, and sucks out the juice of the plant. In a few weeks it arrives at full growth, and changes to a pupa or chrysalis state, of a cone-like or flax-seed shape. In this state it lies until the following Spring, when the perfect fly comes forth and deposits a second brood of eggs, which attack the wheat stalks above the ground, but near the lower joints. The juice extracted weakens the stalk and it crinkles

down. Its effects are not very visible until the stalk has attained nearly its full growth, when by going through a field the extent of its depredations is generally known by the number of lodged or fallen stalks. The flaxseed grub when present, may be found much earlier by carefully stripping down the leaf-sheath from the still green and upright stalk. Since the point of attack is usually below the gathered portion of the straw, the grub is left in the field, where it undergoes its transformation to come out the perfect fly again in Autumn. It is on this account that burning the stubble soon after harvest has proved a partial remedy against future attacks. There is a parasitic insect enemy, which multiplies faster than the Hessian fly, and to which we are indebted for the disappearance of this pest after its prevalence during a few years in any locality.

The clear-winged Wheat Fly, (*Cecidomya Tritici*).—This fly, by many called the Midge or Wheat Gnat, resembles the Hessian fly in general form and size, but differs from it in having an orange-colored instead of black body, clear or transparent wings instead of dark; its antennæ or horns are longer and more fringed, its legs are longer and more slender, and its abdomen is covered with short hairs and blunt at the extremity, instead of smooth and pointed like that of the Hessian fly. It undergoes its changes in the soil and attacks the blossoms and immature grain instead of the straw. These distinctions should be studied, for upon a clear understanding of them depends the treatment to be pursued.

The clear-winged wheat flies conceal themselves among the grass and leaves during clear midday, but morning, evening, and on cloudy days, they appear in swarms over a wheat field, and deposit their eggs in the heads. In the course of a week or so, these eggs hatch out orange-colored maggots, which feed upon the pollen of the flour, and finally attach themselves to the soft grain. They cannot injure the kernel after it has acquired some degree of hardness. They do not make their appearance until the latter part of June or forepart of July, according to the latitude, and only attack the wheat while in a soft state, and on this account early wheat escapes injury. Using only the early, hardy varieties, or sowing early, and forcing to quick maturity with guano or other stimulating manures, are the best known means of

escaping this insect. The yellow or orange-colored maggots are easily observed—there frequently being as many as twenty or thirty, or more of them, on a single wheat head. We have often found several of them on a single kernel, upon carefully removing the chaff or sheath. From the imperfect descriptions given, we think that much the greatest “insect” injury of the present season has been done by this species. During the latter part of July and the forepart of August, the maggots or worms obtain their full size, cast off their skins, descend to the ground and bury themselves half an inch or so below the surface, where they remain during the Winter, and come forth perfect flies the following season, to continue and multiply their depredations. It is against this fly that sprinkling lime over the growing wheat, burning sulphur in the field, and such like means, have proved a partial remedy.

The Grain Moth (*Tinea Grinella*), when fully developed, is a small winged insect, a little resembling a butterfly in its general form. Upon its head is a white hairy tuft, and two short antennæ or horns. Its fore wings are mottled with black, white and intermediate colors, always with one black rectangular or square spot near the middle of the outer edge. The eggs are deposited in Spring, and again in the latter part of the Summer. The first brood are hatched in July, and take the form of a sixteen-legged caterpillar, with a naked soft body, nearly half an inch in length. They gnaw the surface of the grain, and cover it with a thick web, which sometimes fastens together a number of kernels. After a time these caterpillars spin a cocoon, in which they undergo the usual transformation, like those of the butterfly.

The Angoumois Moth (*Anacampsis cerealella*) is another grain moth, which has proved immensely destructive in France, especially in the province of Angoumois, from whence it derives its name; and the same moth, or one very similar, has appeared in this country. The perfect insect is a very small moth, of a pale cinnamon brown color, and satin lustre. Its wings are long, narrow, broadly fringed and ash or lead-colored. It has two thread-like antennæ or horns, consisting of numerous bearded joints; a spiral tongue of moderate length, and two tapering feelers turned back over the head. It lays twenty or more eggs upon each of three or four wheat grains, and within a week these

hatch out little worm-like caterpillars not thicker than a hair, which immediately disperse, each selecting a single grain and burrowing into its most tender part. Within the grain (and not upon the surface like the grain-moth) it devours all the heart portion, then spins a web to divide its cell into cavities, in one of which it deposits its excrements or rejected fragment of food, and in the other it undergoes its transformations preparatory to coming forth a perfect moth. These, like the grain weevil, may be destroyed by kiln-drying.

There are several other species of grain-moths, but they are yet imperfectly known, and have not been generally destructive.

Chintz or Chinch Bug (*Lygus leucopterus*.) This insect has proved more destructive in Virginia and other Southern States than at the North. In its perfect state it has a black downy body, about one-sixth of an inch in length, and is readily distinguished by its white wing-covers, upon each of which there are a short, black central line, and a large, black oval spot upon the margin. They do not arrive at their perfect state until about the time the wheat is ready to cut. Previous to this they are without wings and resemble the bed-bug in odor and color. It is at this time that they are most destructive. From the eggs laid in the ground the previous season, the young come forth in the Southern States in May—later at the West or North—at first of a bright red color, but changing with age to brown and black. They travel from field to field in immense columns, like locusts, destroying everything as they proceed. They destroy wheat by attaching themselves to the green stalk and sucking out the entire moisture. They have been arrested in their course by running ditches across the field before them, filling these with dry straw which is set on fire when the bugs are seen thereon. They have also been destroyed by burning the dry leaves of the forest, upon which they have settled.

Hints for Gardeners.

All growers of raspberries, gooseberries, blackberries, currants, &c., can secure their bushes against disease and unproductiveness by *mulching the roots well*. Any old trash in the garden will answer for this purpose—such as weeds, grass, leaves, and the scrapings from the avenues. It acts as an exterminator of

weeds—as a cooler and moistener of the soil—and as the *best manure*, when it rots, that can be applied. We never knew a gooseberry bush that had been properly thinned out, and not bound up too closely, showing *mildewed fruit*, or that did not bear abundantly every year.—These mulchings should be applied three times in the season—in the spring, in midsummer, and late in the fall.

It should also be remembered, as it respects raspberries, that any grubbing or digging about their roots, should be carefully avoided. In nearly if not quite every instance where we have disturbed the roots of the raspberry, the stalks either perished over winter, or were so much injured as to be next to worthless the following season.—*Germantown Telegraph*.

From the New England Farmer.

How to Kill Ticks.

MR. EDITOR:—In the June No. of the *Farmer*, a subscriber wishes to know the best way to kill ticks on sheep, and thinking the remedy used here preferable to the one you recommend, I give it.

Take tobacco, about 10 pounds to 100 sheep, and boil in water until the strength is extracted, reduce the liquor if too strong, (about eight pailsfull of liquor to ten pounds of tobacco is the right proportion,) and dip the lambs into it all over, taking them out quickly squeezing out the liquor from the wool. After the lambs have all been thus treated, put the old sheep into a close yard in as small a space as can be and throw the remaining liquor over them with a pail. The application should be made in a dry day and immediately after shearing. One application will kill every tick without any injury to the sheep. Most of our sheep-growers consider tobacco beneficial when sheep are not infested with ticks, making them healthy and less liable to disease. I treat my flock so yearly, although I seldom see a tick.

I send you a sample of wool taken at random from a fleece, taken off June 1st, from a two year old buck, with the weight of sheep and fleece. Sheep weighed before shearing, 117 1-2 lbs., fleece; 14 1-16 lbs. of *well washed wool*, of one year's growth *only*; breed, from "Native American" Merino descended from stock imported from Spain, many years since. If any of your readers can beat this, I should like to hear from them.

J. B. PROCTOR.



The Carolina Cultivator.

RALEIGH, NOV., 1855.

TERMS

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Our Late State Fair.

The third annual Fair of the North Carolina State Agricultural Society was opened to members of the Society on Tuesday the 16th, and to the public on Wednesday the 17th ultimo, under an aspect of the weather and other concurring circumstances as favorable as could be anticipated. The sky was beautifully clear and serene, the air pleasantly warm, and everything auspicious for a brilliant occasion, with the single exception of the dust, which for the third time interfered with the comfort and pleasure of the assembled multitude. This condition of the weather continued till near the close of the Exhibition, when a warm rain settling in, at the same time laid the dust and hastened the departure of the people.

Previously to the opening of the Fair, considerable exertion had been made, under the direction of the Executive Committee, to prepare the enclosures and buildings in improved style for the occasion. The increased order and system displayed in the arrangements and conduct of the Fair, clearly showed that much

experience had been acquired from the difficulties and mistakes of former exhibitions, and we only regret that some important matters of a minor character were left too much to the discretion of subordinate agents. That some members of the editorial corps were excluded from the courtesies and accommodations so generally tendered to the press on such occasions elsewhere, was, we are sure, not contemplated or designed by the Executive Committee. It will however be well that the Committee for the next year should bear in mind how much the annual exhibition must depend for its eclat and success upon the facilities extended to members of the editorial profession.

Now that the exhibition is over, and we are permitted to review it with calmness and impartiality, we must take the liberty to utter our sober sentiments in regard to it. By some who witnessed it, it has been pronounced a brilliant affair, and by others equally friendly to its objects, it has been publicly characterized as a *failure*.

The truth lies between the two. Considered as a grand popular convention, a pleasant reunion of the sons and daughters of North Carolina, in the capital of the State, forgetting for a season the differences of sect and party, and mingling together in delightful social intercourse, the late Fair far surpassed, in the number of the attendants and the interest of the scene, either of those that have preceded it.—Many of the most distinguished men and loveliest women of the State graced it with their presence, and the concourse of strangers from distant counties was equal to our largest expectations.

We must however confess that a general disappointment was manifested at the falling off in the number and variety of articles on exhibition. That Floral Hall contained a meagre collection of domestic articles, that the stalls for stock were only partially occupied, and that the number of farming and mechanical implements was comparatively small, must have been apparent to every person who visited the Fair. In these features it was undoubtedly a "failure," and it would be well for the friends of agricultural improvement in North Carolina to feel the full force and mortification of the statement. But we are by no means willing to admit that this reproach belongs to the exhibition *on the whole*, considering the circum-

stances that conspired to interfere with its success. The beautiful displays of North Carolina productions, in several of the departments, the exquisite character of the workmanship in some of the articles of Mechanics' Hall, and more especially the elegance and ingenuity illustrated by many individual objects, all forbid that we should consider the exhibition unworthy of the State and of the day. Foreign articles were comparatively few, but the displays of native industry were such as to encourage us to more generous efforts in the future.

We refer our readers to the Premium List in another part of our columns, for information in regard to the character of the specific articles exhibited. We would not undertake to give a minute description of the objects of merit which passed under our review, because a want of time and space, and a desire to be impartial, warn us against the task. We would gladly mention the names of many of the more successful exhibitors, but their number was too great to be recorded. Let all take encouragement from past success or from the success of others, to prepare early for the next Fair, and contribute to it with increased zeal and enlarged liberality. Let it occupy a prominent place in the thoughts of the people throughout the year, and perhaps the word "failure" will not be uttered again.

Suggestions.

Whilst the experience of the late Exhibition is yet fresh in our minds, we will venture to make one or two suggestions in time for another similar occasion. We invite the attention of the new Executive Committee of the State Agricultural Society to this result of our reflections.

In regard to the Premiums which may be announced for the next Exhibition, it strikes us as very desirable that there should be a few of such magnitude, as to present greater inducements to the people in distant parts of the State, to produce and enter for competition articles of the first order. The stimulus of large and liberal rewards seems necessary to overcome the difficulties and discouragements in the way of a general exhibition in so large a State as North Carolina. These large premiums might be offered for the largest and best varie-

ties of articles under several of the more important divisions.

We would also suggest that the Executive Committee may keep up the interest of the people in the annual exhibition by bringing the subject more frequently before the public by means of the press. The Secretary of that body might be instructed to make frequent announcements of its transactions, not only in the agricultural, but also in the political and other secular papers, in all parts of the State. In this way the subject of an exhibition may be repeatedly impressed upon the public mind, and a general desire created to participate in it. For want of this kind of effort in time, the late Fair lost much of the interest that should have attended it.

Lastly, members of the State Agricultural Society should remember throughout the year, that the Fair is *their* enterprise, and make it a personal business to keep it before the people. If each member does but half his duty in this respect, for the next twelve months, we will have an exhibition in Raleigh next October, which will astonish the whole country. Nothing is wanting but public spirit, to put North Carolina in the very front rank of the agricultural States.

Try It.

We recommend the following simple plan for the preservation of apples to our country friends whose orchards have yielded well during the present season. Remember that good apples will be a great luxury in the spring:

TO KEEP APPLES.—The most effectual method of preserving both apples and pears with which I am familiar—and which of course I recommend in preference to all others, is the following: Having selected the best fruit, wipe it perfectly clean and dry with a fine cloth, then take a jar of suitable size, the inside of which is thoroughly coated with cement, and having placed a layer of fine sand perfectly dry at the bottom, place thereon a layer of the fruit—apples or pears as the case may be—but not so close as to touch each other, and then a layer of sand; and in this way proceed till the vessel is full. Over the upper layer of fruit a thick stratum of sand may be spread and lightly pressed down with the hands. In this manner choice fruit, perfectly ripe, may be kept for almost any length of time, if the jar be placed in a situation free from moisture.

Improved Apparatus for Wells. N. C. State Agricultural Society.

We were struck with the simplicity and beauty of the following plan for rendering the old-fashioned bucket and windlass more convenient and efficient. It is recommended not only by theory but by actual experiment:

Though excellent pumps for use in wells are abundant, many still prefer the "old-fashioned bucket" and windlass; and occasionally a well is so deep that the use of the bucket affords by far the most convenient means for drawing the water.

The chief inconvenience that attends its use is, in lifting the bucket of water when raised to the mouth of the well, so as to empty the water into the pail or other vessel provided to receive it; and it is to obviate this difficulty that the above represented contrivance is proposed. One that has been in daily use some six or eight months is found to work well.

A box or curb, about three feet square, is made in the ordinary way, and to the opposite sides a frame is attached about eight or nine feet in height; it is joist or scantling, eight by two inches, and has a cross-piece at top of the same. The windlass is placed at right angles to this frame, and a little to the right of the centre of the box, with the rope attached in the usual manner, its end passing over a roller above, and connecting with the chain of the bucket.

The spout inside the curb is made large enough to receive the bottom of the bucket, in which is placed a large valve with a projection downward, so that when the bucket is let down in the spout the valve is opened, and of course the water discharged. The mode of using will be obvious to all, as well as the advantage of the contrivance. The bucket is represented as standing in the spout; in the winter, after using, it should be let down into the well, to prevent the valve from being fixed by the ice.—*J., in American Agriculturist.*

In the opinion of all qualified to judge, the address delivered at the late Fair by the Hon. THOS. RUFFIN, President of the Society, was an admirable effort, well worthy of the occasion, and of his own reputation.

ARSENIC.—This is an article that should never be bought, and if bought should never be kept in a family. Thousands of lives have been destroyed by its careless use. The good it can effect by killing vermin, is too trifling to compensate for the danger that accompanies it.

We have not been able to obtain the minutes of the State Agricultural Society in time for this number. In our condensed statement of its proceedings, the reader will find all that is important and interesting.

The regular annual meeting of this body was held on Tuesday evening last in the Hall of the House of Commons, the Hon. Thomas Ruffin, President in the chair. At this meeting we were present but a short time. The time was consumed in part in reading and correcting the various committees of examination. After this was concluded, some discussion took place on a motion to adopt the "Arator," published in this place by Thos. J. Lemay, as the "organ" of the Society. It was finally moved to lay this proposition on the table, and whilst the motion was pending the Society adjourned.

On Wednesday night the Society convened again in the same place, a large number being in attendance. The motion to lay the resolution to adopt the "Arator" as the organ of the Society, having been called up, was without debate put to a vote, and decided in the affirmative. The Society thus virtually sanctioned a previous decision of the Executive Committee, and put to rest a question which threatened to involve some of its members in disagreeable dissensions.

After the disposal of this matter of an organ, which leaves the CAROLINA CULTIVATOR and the ARATOR to sink or swim by their merits alone, and saves the Society from an unnecessary discrimination, it was resolved to go into an election of officers for the ensuing year, when the following gentlemen were duly chosen. For President, the Hon. Thos. Ruffin of Alamance; Vice Presidents, Messrs. Smith, Dancy, Holt and Graham; Recording and Corresponding Secretary, Mr. Thos. J. Lemay; Treasurer, Mr. J. F. Hutchins.

The remainder of the evening was occupied in animated addresses by Gov. Graham, Mr. Venable, Mr. Burgwyn, Gov. Morehead, Mr. Smith of Halifax, and Dr. Crudup.

On Thursday the annual address was delivered on the Fair Grounds by the President—Judge Ruffin. At night the Society convened again in the Commons Hall, when the report of the Committee on the Constitution was presented. The sixth section was amended so as to reduce the number of the Ex. Committee to seven members, and to make the President chairman *ex-officio*. The Committee appointed were, Messrs. W. R. Poole, Chas. L. Hinton, R. A. Hamilton, Richard H. Smith, Jno. S. Dancy,

Paul C. Cameron, and W. H. Jones. The fee for membership was reduced to \$2.00.

The following were the receipts of the Society during the Fair up to Thursday evening:

Payments by 418 members,	\$1,254 00
At the Gate,	1,468 96
Hacks,	170 00
Shows, &c.,	35 00
Donation,	5 00
Rents,	90 00
	<hr/>
	\$3,022-96
From the State,	1,500 00
	<hr/>

Total, \$4,522 96

On Friday night the last meeting of the Society was held, and the business of its annual sessions completed. Various committees were appointed for the ensuing year. Their names we omit for want of space.

Post.

For the Carolina Cultivator.

Rotations of Crops—No. 3.

MR. EDITOR:—In my last communication, I somewhat minutely detailed the manner in which nourishment is conveyed to plants, and rendered effectual in sustaining them, in order that your readers may more readily comprehend the reasons which I am now prepared to state, why there is a necessity for a change in the kind of plants grown upon a particular soil. A plant acting mechanically through its rootlets, is under the necessity of absorbing whatever is presented to them, no matter whether its effects may be deleterious or beneficial. If alcohol be supplied to the roots, it will be drawn up immediately into the sap vessels, as though it were the most nutritious aliment, and although it cannot make the plant "stagger like a drunken man," it will as surely dry up the fountains of life and destroy the vitality of the plant, as of the human system. A drop of prussic acid, which is one of the most deadly poisons known, applied in the same way, will prove almost instantly fatal. There are, however, various substances, which, though they will not destroy the plant, are of such a nature that they will not assimilate with it. Carried up by the sap to the leaves, and thence by the cambium to the various vessels and organs of the plant, they are rejected by them all successively, as

wholly unfit to afford them nourishment, and after having passed through the system without any alteration, they are eventually excluded from the roots which had absorbed them, and thus return into the soil, which they deteriorate for an immediate succession of the same kind of plant. But while these substances are rejected by one class of vegetables, another class will readily assimilate with, and derive nourishment from them, so that the soil which has been rendered unfit for the first mentioned class on account of their exudations is improved and enriched for the cultivation of the other.

This theory was first suggested by a distinguished French Botanist (DeCandollé,) and though its truth may not be considered as established beyond controversy, all the experiments that have been made with reference to this subject, are strongly corroborative of it, and it enables us satisfactorily to account for phenomena that are otherwise veiled in mystery.

We are now prepared to understand why a forest of chestnut should succeed a growth of maples, or oaks should spring up in the place of uprooted pines. The exudations of centuries have unfitted the soil for the nourishment of the kind of tree that is growing upon it, while it has at the same time become peculiarly adapted to the growth of some other kind. But the occupants of the soil have got possession, and maintain it year after year by thrusting their roots deeper and deeper, beyond the influence of their own exudations, until by some summary process of ejection, they are wholly swept away. The seeds of various trees that for years may have been strewn upon the ground, waiting for favorable circumstances to bring into action their vital principles, have now apparently an equal chance for springing up and occupying the place of its former possessors. Those seeds however, to which the exudations of the uprooted forest, are most congenial, will most readily spring up, and grow most vigorously, thus driving out the others, and appropriating the whole territory to themselves, until their day shall be over, and like their predecessors, they in turn shall be swept away to make room for others.

Though the reason above adduced for the necessity of a rotation of crops is doubtless the principal one, there are other circumstances that

ought to be taken into the account, as exciting no inconsiderable influence:

1st. The structure of plants, such as the form, &c. of their roots, stalks and leaves, affords one important reason for the rotation of crop. Some plants like beets, carrots, &c., have long spindling roots, which penetrate deeply into the soil, while most of the grasses and grains have roots that lie near the surface. It is manifest that these two classes of plants require very different kinds of cultivation, and consequently the mechanical effect upon the soil, will be very different. Of all plants, those which have long slender stalks and fibrous roots, exhaust the soil most rapidly. To this class belong Wheat, Rye, Oats, Barly, Corn, Tobacco, Flax, Hemp-Flax and some of the grasses. Flax and Hemp are more exhausting to the soil than any other crop, because their leaves are small, and they consequently cannot obtain much nourishment from the atmosphere through their agency, and their stalks being entirely removed after they are ripe, they return little or nothing to the soil in the form of stubble or roots. Corn and tobacco are less exhausting, because their long leaves expose a much greater surface to the action of the atmosphere and draw support therefrom.

Leguminous plants, such as peas, beans, &c., are less exhausting to the soil than those already mentioned, but of all other crops, those possessing long or spreading roots, such as beets, turnips, onions, cabbages, and clover exert the least unfavorable influences upon the soil in which they grow. Having broad, porous, fleshy leaves, they imbibe great quantities of ammonia, carbonic acid, water &c. from the atmosphere, and therefore make smaller drafts upon the soil itself, for their support. All plants require more nourishment at the period when they are ripening their seeds, and nature then puts forth her greatest efforts; but the kinds of plants of which we are now speaking, are seldom cultivated for their seeds. Being biennials—that is requiring two years for the perfection of their seeds, they are gathered before the period arrives when they are most exhausting to the soil, and at the same time their very structure requires deep ploughing, and a thorough turning up of the soil for their cultivation. In addition to this their broad leaves cover up and protect the earth, so that weeds cannot grow, and appropriate the nourishment designed for

the crop, and they are therefore supposed rather to ameliorate, than to impoverish the soil.

Another reason why it becomes necessary to change successive crops, is found in the fact that different plants are composed of different chemical ingredients, the waste of which must be supplied from the soil. For example, potash enters largely into the composition of wheat; hence it would be impossible to raise wheat upon a soil that was wholly destitute of potash, or at least of some other kindred alkali. Now it is manifest, as there is never more than a limited quantity of the alkalis in the earth, that if wheat is grown for successive years upon the same spot, all the potash of the soil will become exhausted and it will no longer be capable of perfecting wheat, though it may still bear abundant harvest of such plants as have no potash in their composition. In Virginia, there are thousands of acres of waste and barren lands—the very personification of desolation—that were once distinguished for their fertility.—These lands have become exhausted by cultivating tobacco uninterruptedly for a series of years, without adding any manure or changing the crop, and it is estimated that 1200 lbs. of alkalis, were by this process extracted from every acre of the soil. For many years they have lain profitless, the undisturbed dwelling place of the rabbit and the grouse, but Yankee thrift aided by science is now fast redeeming them and restoring them to their pristine fertility. A few years since a company of New England farmers, purchased large tracts of these exhausted lands, for an almost nominal price, and by a judicious system of cropping, returning to the soil everything that was raised for several seasons, and adding such chemical ingredients, as a careful analysis indicated as necessary, they have realized a handsome return for their seemingly hopeless investment.

That a continued succession of the same kind of crops would exhaust the soil, was a fact well known even in the infancy of agriculture, but as land was then abundant and but few to claim or cultivate it, the difficulty was easily remedied by removing from one spot to another, as the soil began to exhibit signs of exhaustion, a practice yet in vogue, in the less populous portions of some of the Western States. The Romans introduced the system of fallows, which consist in occasionally allowing the land to rest for a year or two; during that season it is re-

peatedly ploughed in order that every part may be exposed to the air whence it derives its oxygen, and the weeds buried by the plough instead of exhausting, serve to enrich the land. For many centuries this was the most improved, and in populous districts the only method systematically adopted to retrieve what was commonly called "exhausted land," and in many parts of the world it is yet extensively used. We owe the system of rotation in crops, now so generally adopted by good farmers, to the Belgians—who are probably the best farmers in the world—through the English, who adopted it from them.

As I am not a practical farmer, and can consequently give no instruction from my own experience of the order in which the various crops should rotate, I shall simply state the system adopted by the Belgians, and though it may vary somewhat, in detail from that adopted in this country, the principle of both must be the same. Ordinarily their system of rotation occupies four years. First a hoed crop is introduced to destroy weeds: turnips, potatoes, carrots, beets or any other plants with long roots, are very appropriate for the purpose, as it obliges the farmer to plough deep, to prepare the soil for them. After gathering in this crop, the leaves and the remnants of the plants are ploughed into the soil, the land is manured and wheat and clover are sown together. The clover does not make its appearance, until after the wheat is reaped, and of course affords but little profit during that year, but in the following season it yields an abundant harvest. After it is mowed, the ground is ploughed and the remains of the clover buried, and thus both by exudations, and by a part of its own decayed substance, it renovates the soil, after the exhaustion it had undergone, in ripening the wheat, and enables it to produce another crop of grain the fourth year which completes the rotation.

From the above remarks it is apparent that culmiferous plants, or those that bear straw, leguminous, and root crops should alternate with each other, because their structure, composition and radical exudations are most diverse, and the least injurious to each other. If the first crop is a hoed crop, the second should be grain, though two successive hoed crops, such as corn and potatoes are better than two suc-

cessive grain crops. The following will be found a good system of rotation for most parts of this country. The first year, beans, potatoes, or Indian corn with manure; the second year, wheat, rye, barley or oats without manure; the third year, roots, such as turnips, carrots or beets, with deep tillage and compost manure; the fourth year, the same as the second, with clover or grass seed. The land should be smoothed, and may remain in grass for a few years.

Although experience is a sure master, in teaching the farmer what crops will be best succeed each other, it is too frequently the case that it is *slow* in inducing him to give heed to its teachings. Convenience is too often the guide in determining the order of succession, without reference to the nature of the succeeding crop. The study of Agricultural books and Periodicals, has never until quite recently been considered very appropriate or very profitable work for the practical farmer, so far as his daily business is concerned, but this delusion is fast vanishing away. Science is the handmaid of agriculture, as well as of everything else that is good, and that farmer is wise, who will give heed to its instructions, mingling them with the results of his daily experience.

Bloomfield, N. J.

R. L. C.

POULTRY DISEASES.—Onions seem to be a preventative and remedy for various diseases to which domestic poultry is liable. Having frequently tested their excellencies, we can speak understandingly. For gapes and inflammation of the throat, eyes, and head, onions are almost a specific. We would recommend feeding fowls, and especially the young chick, as many as they will eat as often as twice or three times a week. They should be finely chopped, and a little corn meal added.

FRUITFUL BENEVOLENCE.—It is stated of Gen. Putnam, that he planted in his native town in Windham Co., Conn., a mile of apple trees along the highway, so that "the poor might have apples as well as the rich." Such beneficence is well worthy of imitation.

LEAF CAKE.—Two pounds of flour, one of butter, one of sugar, four eggs, half a pint of yeast, and a pound of raisins.



Houghton's Seedling Gooseberry.

The gooseberry is propagated by cuttings.—The soil should be a strong loam unusually deep by trenching, to secure the bushes from drought. It should be kept fertile by manure. The pruning should be freely performed as soon as the leaves are off, by a thorough thinning out the branches. The growth and ripening of the fruit depend wholly on the admission of light and air to the leaves, and on their full and healthy development.

Houghton's Seedling is probably the best variety of the gooseberry ever cultivated in this country. It is a cross between our native gooseberry and some foreign kind. The berry is rather small, as may be seen in the engraving; oval; the skin thin; reddish brown; the flesh fine, very tender, sweet, and of a fine delicious flavor. It is a very superior gooseberry for the dessert; it is also excellent for cook-

ing, and it is in good condition for this purpose for about four weeks.

As a grower, it excels by far all other kinds that we have cultivated; and as to bearing, every season, nearly all the growth of the previous year is covered with fruit. One or two quarts of fruit have been grown on bushes set the previous year. A plant well set in the spring, in a good soil, will make a large growth the first year, and the next year will be loaded with fruit.

This variety not only excels in growth, bearing, and quality, but it is free from blight, which is the destruction of almost every foreign kind cultivated in the country. Some gardeners, after having become acquainted with *Houghton's Seedling*, have excluded every other variety from their grounds. We regard it as not only superior to any kind of foreign gooseberry, but worth far more than all of them for this country of hot summers.—*Selected.*

N. C. State Fair.

LIST OF PREMIUMS

Awarded at the Third Annual Fair of the N. C. State Agricultural Society.

We give below a list of the Premiums awarded by the Judges at the late Fair. There may be a few omissions or errors in the list. We have not been able to procure the report on Fruit and Fruit Trees, as it was not handed in before the hour for reading out the premiums.

BRANCH I--LIVE STOCK.

FIRST DIVISION.

First Class—Thoroughbred.

- Best Stallion over 4 years old, Gen. M. T. Hawkins, 1st premium, \$25
 2nd best Stallion over 4 years old, W. F. Petts, 2nd premium, 15
 Best Brood Mare over 4 years old, Gen. M. T. Hawkins, 1st premium, 15
 2nd best Brood Mare over 4 years old, P. C. Cameron, 2nd premium, 10
 Best Mare over 2 and under 4 years old, Gen. M. T. Hawkins, 1st premium, 10

The committee cannot withhold their admiration of a yearling colt, the property of Gen. M. T. Hawkins, and recommend him to the consideration of the Discretionary Committee. William R. Holt, John Kirkland, Walter Gwynn, Committee.

2nd Class—Quick Draught and Saddle Horses.

- Best Stallion over 4 yrs old, S. O'Bryant, 1st premium, \$20
 Second best Stallion over 4 years old, F. M. Parker, 2d premium, 10
 Second best Brood Mare over 4 years old, S. O'Bryant, 2d premium, 5
 Best pair matched Carriage-Horses raised in the State, W. H. Holderness, 1st premium, 20
 One Colt, 2 years old, Ab. Scott, 1st premium, 5
 One Black Horse, Jacob Sorrel 1st pre. 10
 One Harness Horse, S. T. Cuthbertson, 1st premium, 10
 C. M. JORDAN, Ch'm.

3rd Class—Heavy Draught Horses.

- 2nd best Stallion over 4 years old, Jno. Hayes, 2nd premium, \$10
 Best Brood Mare over 4 years old, Starling Parrish, 1st premium, 15

In this class the committee examined a very fine Gray Horse, 5 years old, exhibited by S. O'Bryant of Roxboro, being superior to any horse in this class on exhibition—all other horses were ruled out for the first premium.—In consequence of this horse having drawn a premium at the N. C. State Fair last year, the

committee could not award the same horse a premium this year. Given under our hands this 17th of October, 1855.

H. T. Clark, J. A. Whitaker, J. M. Cunningham, Committee.

JACKS AND JENNETTS.

- Best Jack, with approved certificates, imported, A. Walker & Co., 1st premium, \$20
 Best and largest Jack, raised in the State, Gen. M. T. Hawkins, 1st premium, 20
 Best and largest Jennette, raised in the State, S. W. Cotton, 1st premium, 10
 John S. Dancy, S. P. Hill, Alexander B. Hawkins, Committee.

SECOND DIVISION.

CATTLE.

1st Class—Short Horns and Durhams.

- Best Bull over 3 years old, N. Devon, S. Smith, 1st premium, \$15
 Best Bull over 2 and under 3 years, Durham, Wm. Russell, 1st premium, 10
 Best Bull over 1 and under 2 years, Wm. Russell, 1st premium, 5
 Best Heifer over 1 and under 2 years, Wm. Russell, 1st premium, 3
 Best Cow over 3 years old, N. Devon, Dr. R. H. Mason, 1st premium, 10
 Best Calf, N. Devon, S. Smith, 1st premium, 3
 Best Calf 6 months old, Devon & Durham, Wm. Russell, 1st premium, 3
 Best Heifer 15 months old, N. Devon, Dr. Wm. R. Holt, 1st premium, 3
 Best Bull Calf 1 year old, N. Devon, Dr. Wm. R. Holt, 1st premium, 3
 Best 2 year old N. Devon, Gwynn, 1st premium, 3
 Best Heifer over 1 and under 2 years old, Devon, E. Hall, 3
 Jas. E. Williams, H. G. Williams, A. W. Venable, Committee.

GRADES OR MIXED BLOOD AND NATIVE CATTLE.

- Best Bull, Native, 3 and a half years old, M. S. Henly, 1st premium, \$15
 Best Cow, Grade, 4 years old, Seth Jones, 1st premium, 10
 L. O'B. Branch, Thos. Ruffin, R. R. Bridgers, Committee.

WORKING OXEN.

- Best pair of Work Oxen, John Hayes, 1st premium, \$10
 C. L. Hinton, Thos. Miller, Committee.

FAT CATTLE.

- Best fat ox, Dr. E. A. Crudup, 1st premium, 5
 W. A. Graham, C. Graves, Bryan Grimes, Committee.

MILCH COWS.

- Best Milch Cow giving not less than 20 quarts on exhibition, Seth Jones, 1st premium, \$30
 2nd best Milch Cow giving not less than 16 quarts on exhibition, Jno. Hayes, 2nd premium, 10
 A. W. Venable, E. J. Mumford, Committee.

THIRD DIVISION.

SHEEP.

Best Bucks, 4 years old, South Down & Leicester, Dr. Wm. R. Holt, 1st premium, \$10
 Wm. Long, John H. Bryan, G. J. Ward, Committee.

FOURTH DIVISION.

SWINE.

1st Class—Large Breed.

Best Breeding Sow over 2 years old, with not less than 4 pigs, W. T. Hopkins, 1st premium, \$5

2nd Class—Small Breed.

Best boar under 2 years old, J. C. Partridge, 1st premium, \$5
 Best sow under 2 years old, J. C. Partridge, 1st premium, 5

3rd Class—Natives.

Best single fat Hog, raised in the State, S. R. Ireland, 1st premium, \$5
 Rich'd H. Smith, S. W. Humphry, Committee.

POULTRY.

Best pair of Shanghais, F. J. Haywood, 1st premium, \$3
 Best pair Brahmas, Mrs. J. C. Partridge, 1st premium, 3
 Best pair Game, J. D. Newsom, 1st premium, 3
 Best pair Cross-Breed, E. E. Hunter, 1st premium, 3
 Best pair Domestic Turkeys, Mrs. Dr. Mason, 1st premium, 3
 Best pair Muscovy Ducks, Jas. McKimmon, 1st premium, 3
 Best exhibition of Pigeons, F. M. Ironmonger, 1st premium, 5
 Best and largest exhibition of Poultry by one exhibitor, Mrs. J. C. Partridge, 1st premium, 10
 Golden and Silver Seabright Bantams, Mrs. J. C. Partridge, 1st premium, 3
 Best Wild Indian Game, Thos. Greer, 1st premium, 3
 Thos. McIlheany, Thos. S. Ashe, A. M. Lewis, Committee.

BRANCH II.—AGRICULTURE.

2nd Class—Agricultural Productions,
 Raised by the Exhibitor.

For the best variety of Bread Corn, T. S. Hoskins, 1st premium, \$3
 Best variety of Stock, do. W. D. Jones, 1st premium, 3
 Best variety of Wheat, W. D. Jones, 1st premium, 3
 Best variety of Oats, W. H. Robards, 1st premium, 3
 Best variety of Rye, Dr. E. A. Crudup, 1st premium, 3
 Best variety of Field Peas, W. D. Jones, 1st premium, 3

Best variety of Sweet Potatoes, Crawford Taylor, 1st premium, 3
 Best variety of Irish Potatoes, P. R. Hines, 1st premium, 3
 Best variety of Grass Seed, John Stafford, 1st premium, 5
 Thos. Bragg, W. W. Holden, E. Hall, Committee.

DAIRY.

Best jar of Fresh Butter, W. B. Williams, 1st premium, \$3
 H. H. Watters, A. B. Hawkins, S. P. Hill, Committee.

Food, Condiments, &c., from 14 to 19.

For the best specimen of the following dried fruits; Peaches, Pears, and Apples, of each not less than 1-2 bushel, S. W. Westbrooks, 1st premium for each, \$2

For the best and greatest variety of the above dried fruits made and exhibited by the same individual, S. W. Westbrooks, 1st premium, 5

For the best specimen Domestic Wine, not less than 1-2 dozen bottles, D. W. Lewis, 1st premium, 5
 W. H. Walters, A. B. Hawkins, S. P. Hill, Committee.

FOOD, CONDIMENTS, &c. to 14.

For the best specimen of Wheat Flour, Alexander Dixon, 1st premium, \$10

2nd best specimen of Wheat Flour, N. Price, 1st premium, 5

For the best specimen of Corn Meal, W. F. Collins, 1st premium, 3

A barrel of superior Flour, made from 3 3-4 bushels of White Wheat at Long Creek Mills, by S. H. Hunt, deserves notice.

J. B. G. Roulhac, Wm. Upchurch, M. B. Royster.

Vegetables.

For the best stalks of Egg Plants, T. E. Pender, 1st premium, \$1

Best Pumpkins, M. Lambert, 1st premium, 1

Best Beets, K. M. C. Williamson, 1st premium, 1

Best Turnips, J. Kirkpatrick, 1st premium, 1
 D. W. Courts, W. A. Gwynn, W. W. Holden, Committee.

BRANCH III.—MECHANICS.

MECHANICS.

First Class—Plows, &c.

For the best Side Hill Plow, W. B. Church, 1st premium, \$10

For the best double Mould Board Plow, Borum & McLean, 1st premium, 5

For the best Cast Mould Board 1 horse Plow, W. B. Williams, 1st premium, 10

For the best Cast Mould Board 2 Horse Plow, J. H. Gooch, 1st premium, 10

For the best Wrought Mould Board 1 Horse Plow, R. Sinclair & Co., 1st premium, 10

For the best Wrought Mould Board 2 Horse Plough, A. Dixon, 1st premium,
 For the best Wrought Subsoil Plough, W. B. Williams, 1st premium,
 For the best Wrought Cotton Scraper Plough, W. B. Williams, 1st premium,
 For the best Toothed Cultivator, R. Sinclair & Co., 1st premium,
 For the best Toothed Harrow, W. B. Williams, 1st premium,
 For the best Iron Roller, smooth, R. Sinclair & Co., 1st premium,
 For the best Iron Roller, pegged, R. Sinclair & Co., 1st premium,
 For the best and greatest variety of Agricultural implements, manufactured in the State, by the exhibitor, or under his supervision, W. B. Williams, 1st premium,

Second Class—Farm Vehicles, &c.

For the best 2 Horse Road Wagon, J. L. Woods, 1st premium,
 For the best Wheel Barrow, Cobb, Hilton & Co.,
 Best pair of Wagon or Plow Hames, J. L. Woods, 1st premium,
 Best 2 Horse Pleasure Carriage, Dibble & Bros., 1st premium,
 Best Top Buggy, Nelson & Doughty, 1st premium,
 Best Open Buggy, Nelson & Doughty, 1st premium,
 Best lot of Wheel Hubs, Cobb, Hilton & Co., 1st premium,
 Jas. Leathers, C. P. Root, R. R. Bridgers, Committee.

Third Class—Machinery.

HORSE POWER.

Best Sweep Horse Power, J. H. Gooch, 1st premium,
 Best Corn and Cob Crusher, Robbins & Bibb,
 Best Threshing Machine, Stafford, Clark & Dixon, 1st premium,
 Best Broadcasting and Drilling Machine for grain or grass, C. Burnett, 1st premium,
 Best Cotton Gin, J. S. Carlisle, 1st premium,
 Best Hay Press, R. Sinclair & Co., 1st premium,

HAND POWER.

Best Fanning Mill, C. Burnett, 1st premium,
 Best Corn Sheller, R. Sinclair & Co., 1st premium,
 Best Straw and Shuck Cutter, Stafford, Clark & Dixon, 1st premium,
 Best Smut Machine, J. A. McMannin, 1st premium,
 Willis Lewis, A. Brown, W. Albright, Com.

Fourth Class—Saddlery, &c.

Best set Carriage Harness, Houston & Overby, 1st premium,

Best Ladies' Saddle, Bridle and Martingals, C. W. D. Hutchins, 1st premium,
 Best Set 4 Horse Wagon Harness, John Sawyer & Co., 1st premium,
 Samuel P. Hill, H. A. Gilliam, W. H. Holderness, Committee.

Cabinet Work.

Best Bedstead, Parker Rand, 1st premium,
 Best Spring Seat Lounge, Watson & Booth, 1st premium,
 T. E. Pender, A. F. Garrett, Chas. Latham, Committee.

Shoes, Hats, &c.

Best pair of Gentlemen's Boots, Henry Porter, 1st premium,
 Best pair Gentlemen's Shoes, Henry Porter, 1st premium,
 Best Dress Hat, silk or fur, G. W. & D. Gee, 1st premium,
 Best Plantation Hat, G. W. & D. Gee, 1st premium,
 Best half dozen Wool Hats, W. D. Andrews, 1st premium,
 Best Straw or Grass Hats, Mrs. Nancey Newton, 1st premium,
 Best Bonnet and Bandbox made of Hair, S. Hardy, 1st premium,
 Geo. T. Cooke, H. J. B. Marsh, W. D. Jones, Committee.

Fifth Class.—Sundries from No 13 to 17.

For the best and greatest variety of Mechanical Tools, made in the State, Stafford, Clark & Dixon, 1st premium,
 Best lot Manufactured Tobacco, Chewing, Y. & E. P. Jones, 1st premium,
 Best Box Cigars, Lash & Bro. 1st premium,
 Best Box Tallow Candles, Mrs. Jno. C. Partridge, 1st premium,
 J. W. Harris, L. O'B. Branch, Thos. Miller, Committee.

Fifth Class—Sundries to No. 12

Best lot of Rifles, A. C. Ledbetter, 1st premium,
 Best Brass Kettles, Jos. Waltering, 1st premium,
 Best Harness Leather, Jacob Ramsour & Co., 1st premium,
 Best Side of Harness Leather, W. F. Hubbard, 1st premium,
 Best lot Edged Tools, Jos. Waltering, 1st premium,
 Best Turpentine and Brandy Stills, Jos. Waltering 1st premium,
 Best Improved American Rifle, W. W. Clark, 1st premium,
 J. W. Lewis, David Hinton, Committee.

BRANCH IV—MANUFACTURES.

First Class.—Mill Fabrics.

Best piece Sattinette, Carson, Young, & Green, 1st premium,
 Best piece Woolen Jeans, Carson, Young & Green, 1st premium,

- Best Felt Blanket, W. D. Andrews, 1st premium,
 Best piece Woolen Carpet, Mrs. R. A. Lewis, 1st premium,
 Best piece Shirting and Sheeting, J. Newlan & Son, 1st premium,
 Best Bale Cotton Yarn, (all numbers.) J. Newlan & Son, 1st premium,
 Jno. H. Leavy, H. G. Spruill, Wm. Hill. Committee.

Second Class—Household Fabrics.

- Best counterpane, Mrs. Roxana Harris, 1st premium,
 Best Quilt, (cotton) Mrs. Jno. Y. Jones, 1st premium,
 Best Quilt, (silk) Mrs. G. W. Mordecai, 1st premium,
 Best Home-made Carpet, Mrs. R. A. Lewis, 1st premium.
 Best pair home-made Blankets, Mrs. Rebecca Broughton, 1st premium,
 Best Hearth Rug, Miss A. McRae, 1st premium,
 Best pair home-made Silk Hose, Mrs. Lucy Savage, 1st premium,
 Best Knit Counterpane, Mrs. E. Cuthbert, 1st premium,
 Best Bed Spread, Mrs. B. Williams, 1st premium,
 Jno. P. H. Russ, C. H. K. Taylor, Wylie Perry, Committee.

REPORT OF THE COMMIT. ON DISCRETIONARY PREMIUMS.

- 1 Crochet Collar, Miss Maria E. Cooke, 1st premium,
 1 " D'Oyley, Miss A. Sherwood 1st premium,
 1 Box Wax Flowers, Miss Nichols, 1st pre.
 1 Ladies Mantilla, Mrs. E. Hall, 1st prein.
 2 Vest Shirts, Miss B. F. White, 1st prem.
 1 Shirt Bo-om, Miss J. McRorie, 1st prem.
 1 Ladies Basque, Mrs. C. C. Raboteau, 1st premium,
 1 Infant's Shirt, Mrs. Alley, 1st premium,
 1 Ladies Under Dress, Mrs. R. H. Wynn, 1st premium,
 1 Embroidered Collar and Sleeves, Miss M. Kuhn, 1st premium,
 1 Embroidered Collar, Mrs. J. C. Partridge, diploma,
 1 Embroidered Collar, Miss V. C. Royster, 2nd premium,
 1 Lady's Basque, Mrs. Roulhac, diploma.
 1 Jacket, Miss Rebecca Trull, (blind) 1st premium,
 1 Set of Architectural Drawings, 1st prein.
 1 Bed Spread and Curtains, Mrs. Keth, 1st premium,
 1 Brahma Down Tippet, Miss Maria Partridge, 1st premium,
 1 Box Hair, do.

- 1 Map of N. Carolina, W. D. Cooke, to which special attention is called.
 3 Tidies, Mrs. T. Partridge, Diploma.
 5 1 Large case Papier Mache Boxes, Cabas Baskets and Filagree Work, H. D. Turner, Diploma.
 5 Specimen of Bees Wax, Mrs. J. C. Partridge, Diploma.
 5 1 Patch Work Chair, Mrs. Wm. Hill, 1st premium, 3
 1 Medicine Chest and Medicines, A. O. Bradley, Diploma.
 1 Box Artificial Teeth, Dr. Benbow, 1st premium, 3
 3 1 Pair Work Screens, Mrs. W. Lewis, Dip.
 1 Worked Cushion, Mrs. Nelson, do.
 5 1 Pair Ottoman Covers, Miss E. C. Loyd, 1st premium, 3
 5 Oil Paintings by Prof. J. J. Eyers of Edgeworth Fem. College, and by Prof. Freirisch of Greensboro' Fem. College, are deemed entitled to a high degree of merit and are equally deserving of a 1st premium each of 5
 3 2 Leather Frames, Mrs. J. C. Partridge, 1st premium, 2
 2 1 Knit Cloak, Marion Johnson, Dip.
 1 Lot of Ambrotypes, J. T. Havens, do.
 10 1 Lot of Daguerreotypes, J. T. Havens, 1st premium, 3
 5 1 Child's Sack, Mrs. Roulhac, 1st premium, 2
 1 Collar and Cuffs, Mrs. E. Hall, dip.
 1 Baby's Skirt, Miss M. Kuhn, do.
 1 Case Jewelry, C. H. Thompson, do.
 Alfred Dockery, R. A. Hamilton, W. A. Eaton, Committee.

REPORT OF COM. ON ESSAYS AND EXPERIMENTS.

§3 The Committee on Essays and Experiments, to whom were referred the Essays on the accumulative preparation and application of stock yard and stable manures, report:

3 That they have examined these Essays by 1 Messrs. R. H. Drysdale, E. L. Perkins and J. H. Bryan, Jr., respectively; and that while they 1 take pleasure in commending each of them, as 1 replete with learning and information on Agri- 1 cultural Chemistry and useful reflections, and 2 deem each one worthy of publication, they 3 award the premium to Dr. E. L. Perkins of 3 Sampson county, his performance being deemed to conform most nearly to the species of essay for which the premium was advertised.

2 Will. A. Graham and Thos. Bragg, Committee.

2 *Trial of Speed in Trotting in Harness.*—Gray Horse, Ole Bull, belonging to J. S. Ives—Silver Cup.

2 *Trial of Speed in Pacing in Harness.*—Bay Horse, Major, belonging to J. B. Whitaker—Silver Cup.

2 A. W. Venable, J. A. Whitaker, W. H. Hol- 1 derness, Tho's D. Meares, Committee.

Value of Agricultural Papers.

As the summer rain is drank in by the thirsty earth, giving vigor and freshness to plants growing thereon, so is the agricultural paper received by the farmer, weary with his labor. He reposes for a few moments, and refreshes himself by a perusal of its contents. Within there is always something interesting, some new and valuable suggestions for those who will profit by the experience of others. It is an old saying that "experience is a dear school, but fools will learn in no other." But why should we be thus classed? Rather let us avail ourselves of every opportunity presented for improvement, and one great means to accomplish this object is lost by every farmer who does not take a worthy agricultural paper. There is a spirit of emulation excited, when reading what other men have done, to excel them in good cultivation. It also awakens a train of thought whether the land in one's possession might not, by some other mode of cultivation, be greatly enhanced in value, and what are the means of accomplishing it? Among the first changes observable will be the improved appearance of buildings, fences, and general thrift, indicating a prosperous and well regulated household. Improvement is also manifested in the careful cultivation and training of ornamental trees and vines around the dwelling, giving an air of taste and comfort. A garden abounding with all the smaller kinds of fruits and vegetables needed by the family will be found in an appropriate place, giving both pleasure and profit to the owner—the whole establishment constituting a home where all the members live in peace and harmony.

Thus by reading, the mind will be taught to think, and the thoughts carried out in actions will bring comfort, pleasure and happiness.

Northern Farmer.

GRAPE VINE GRUBS.—A small white grub is very prevalent this season in grape vines. It makes its nest under a leaf which curls up and screens it from common observation. All those who have grape vines will do well to give them a thorough examination. A pinnaured or curled leaf is a sure sign of its presence. The only way to destroy them is to pick them off by hand.—*Scientific American.*

From the Northern Farmer.

Clip of Merino Wool.

MR. MINER:—I sheared from my flock of sheep on the 15th and 16th of last June as follows: Average weight per fleece, 7 lbs. 2 oz.—The wool was thoroughly washed on the sheep's backs in a running stream. All my sheep included in this estimate are ewes that are raising lambs, except five, including one buck, whose fleece weighed 12 1-4 lbs. The heaviest fleece from a ewe was 8 lbs. 9 oz., and the lightest 5 lbs. 3 oz. These sheep are all two years old, but three ewe lambs.

J. McCLOY, Jr.

Waterloo, Mich., July, 1855.

From the Northern Farmer.

Worms in Calves' Lungs and Windpipes.

MR. MINER:—Sir:—Can you or any of the readers of the *Farmer* give me through the columns of your paper, the cause and cure of worms in calves' lungs and windpipes? I had last spring six fine calves. About three weeks ago I discovered that they were all ailing; breathed very hard, and coughed a good deal. I can find no help for them. Two of them have since died. I found their lungs and windpipes full of small white worms, about as big as a needle, and all lengths, from half an inch to two or three inches. The other four calves are almost dead with the same disease.

HIRAM BROOKS.

Charleston, Tioga Co., Penn.

FRIED APPLES.—A dish of fried apples is quickly prepared for the table, which is often a consideration of no small importance. Wash them—cut them in two, take out the stem, core and calyx, and, unpeeled, put into a tin pan with butter, or the gravy of baked pork, with some water, in proportion to the quantity to be fried, cover them with a lid, set them on the stove, stir them occasionally until they become soft—and be careful not to burn them. Romanites, which are often almost worthless, baked or raw, "disappear with good gusto when fried." We may truthfully pronounce despicable Penics, when fried, good; but the Porters, Bellflowers, Tallman sweets, and a long list which we might name, when fried, are really a luxury. Sour apples do not fry well; they fry to pieces too much.—*Country Gentleman.*

We are gratified to announce to our readers a Cathartic Pill, (of which see advertisement in our columns,) from that justly celebrated physician and Chemist, Dr. J. C. Ayer. His Cherry Pectoral, everywhere known as the best remedy ever offered to the public for Coughs, &c., has prepared them to expect that any thing from his laboratory would be worthy of attention. As no one medicine is more universally taken than a Physic Pill, the public will be glad to know of one from such a trustworthy source. We happen to know and can assure them that this article has intrinsic merits, fully equal to any compound that has ever issued from his Crucibles, and consequently is well worth a trial whenever such a medicine becomes necessary.—*Racine Com. Adv.*

Table of Contents.

Arsenic.....	290
Consolation.....	279
Clip of Merino Wool.....	299
Fish Ponds in South Carolina.....	279
Fruitful Benevolence.....	293
Fried Apples.....	299
Galish Strawberry.....	280
Grass Vine Grubs.....	299
Hints for Gardeners.....	287
How to Kill Ticks.....	287
Houghton's Seedling Gooseberry.....	284
Improved Apparatus for Wells.....	290
List of Premiums.....	295
Loaf Cake.....	293
Nascent Manuris.....	273
N. C. State Ag. Society.....	280
Our late State Fair.....	288
Poultry Diseases.....	293
Rotation of Crops, No. 2.....	291
Suggestions.....	289
Turpentine.....	281
The Destroyers of our Grain.....	284
Try it.....	289
Value of Ag. papers.....	299
Weights and Measures.....	276
Worms in Calves, &c.....	299

S. W. WESTBROOKS,

Proprietor of the Guilford Pomological Gardens and Nurseries.

WOULD respectfully call the attention of our Southern citizens to his select collection of native and acclimated varieties of FRUIT TREES, embracing some 40,000 trees of the following varieties, viz: Apple, Pear, Peach, Plum, Apricot, Cherry, Nectarine, Almond, also a choice assortment of Grapes, Raspberries, Strawberries, etc., etc.

All orders, accompanied with the cash, will receive prompt attention and the Trees neatly packed and directed to any portion of the country.

To S. W. Farmers wishing Ornamental Trees can be supplied.

Nov. 1855.

9—3m.

CONSUMPTION

SUCCESSFULLY TREATED BY INHALATION OF MEDICATED VAPORS!

BY JOHNSON STEWART, ROSE, M. D.,

FELLOW of the Royal College of Physicians, and for years Senior Physician in the London Royal Infirmary for Diseases of the Lungs.

In this age of progress, medical science has contributed her full share to the general welfare, and that which shines resplendent, the brightest jewel in her diadem, is her last and greatest gift.

Medicated Vapor Inhalation,

In the treatment of Consumption and kindred affections. The most absurd notions, narrow-minded prejudice contemptible ignorance, and unblushing quackery, have long existed in the treatment of Consumption. Men of skill and reputation as physicians have prescribed nauseous compounds to be taken into the stomach, to cure disease of the lungs, while the brazen-faced quack held up his nostrum as the only star of hope for the consumptive—if only enough of it were swallowed. The stomach, where no disease exists, being the receptacle of all this, is soon rendered unfit to perform its functions, and the health thus materially injured. All must see the absurdity, the positive injury of such a course; the disease is in the lungs, not in the stomach; then why, in the name of common sense, do you not apply medicine directly to the lungs? The advantage of Inhalation in Consumption and Throat Diseases is, that medicines in the form of Vapor are applied directly to the lungs where the disease exists; the stomach is thus left free to aid in restoring health, by administering to it healthy, life-giving food. There is no case so hopeless that Inhalation will not reach! The means, too, are brought within the reach of all, the number of administering the Vapors being so simple, that the invalid is never required to leave home, where the hand of friendship and affection tends so much to aid the physician's efforts.

The Inhaling method is soothing, safe and speedy, and consists in the administration of medicines in such a manner that they are conveyed into the lungs in the form of vapor, and produce their action at the seat of the disease. Its practical success is destined to revolutionize the opinions of the medical world, and establish the entire curability of Consumption.

I earnestly appeal to the common sense of all afflicted with lung diseases, to embrace at once the advantages of Inhalation, and no longer apply medicine to the unoffending stomach. I claim for inhalation a place amongst the priceless gifts that nature and art hath given us, that "our days may be long in the land," and as the only

Art of Refuge for the Consumptive.

A method not only rational, but simple, safe and efficacious.

To many of my professional brethren throughout the Union I tender my acknowledgements for their frank and manly course in testifying to the merits of Inhalation. I shall be pleased to co-operate with them in offering to the afflicted the blessings of Medicated Vapor Inhalation in the treatment of Consumption.

One word for myself, in answer to those claiming to have introduced the practice, and to the tribe of imitators who, with brazen impudence, claim it as

their own. I both wrote in favor of Inhalation and practised it 15 years ago! The apparatus then used, with the medical agents employed, achieved only a partial success: I therefore did not claim for it then those miraculous powers which a long practice has since enabled me to give to it. Proof of this may be found in my work published in 1850.

Applicants will please state if they have ever bled from the lungs, if they have lost flesh, have a cough, night sweats and fever turns, what and how much they expectorate, what the condition of the stomach and bowels. The necessary medicines, apparatus, &c., will be forwarded to any part.

TERMS.—Five dollars consultation fee. Balance of fee payable when patients report themselves convalescent.

Recommendations by Physicians.

We, the undersigned practitioners in medicine, cheerfully and heartily recommend Dr. Rose's method of treating diseases of the Lungs and Throat, as the best and most effectual ever introduced into medical practice. Our convictions are based upon having several of our own patients, confirmed consumptives, restored to vigorous health, after a few months treatment by Dr. Rose. In the above named diseases the application of Medicated Vapors, inhaled directly into the lungs, may be justly considered a great boon to suffering humanity, rendering Consumption a perfectly curable disease!

Dr. Rose deserves well of the profession for his unwearied labors in bringing the Inhaling method to such a degree of perfection.

RALPH STONE, M. D.
JONAS A. MOTT, M. D.
CYRUS KINGSEY, M. D.
WM. B. AUSTIN, M. D.
ORVILLE UPSON, M. D.
GAVIN WETMORE, M. D.

DR. ROSE'S TREATISE ON CONSUMPTION.

Price One Dollar. Address

JOHNSON STEWART ROSE,
Office 831 Broadway, New York.

N. B.—The new postage law requires pre-payment of letters. My correspondence being extensive, applicants, to ensure replies, must enclose postage.

Money letters must be registered by the Postmasters—such letters only will be at my risk.

Oct. 1.

SUPERIOR STOCK FOR SALE.

THE SUBSCRIBER EXPECTING SOON TO remove from the State, offers for sale a number of Pigs of the SUFFOLK and ESSEX breeds. Also some beautiful half breeds of both stocks.

Also, some fine fowls of the Brama Poetra and Shanghai breeds. The white Shanghais he regards as far preferable to all other breeds, having tried, nearly all. Address,

J. R. GARLICK,
Murfreesboro', N. C.

May 1855.

GILBERT'S PATENT IMPROVED WHEAT FANS.

The Subscriber, successor to McElwaine & Burnett, having located permanently at Henderson for the purpose of Manufacturing the above Fans, is now offering at wholesale and retail Fans on such terms as think will please. I challenge the world to produce

their equal, as many of the best planters having tried them do not hesitate to say that they *can't be beat!*

They will chaff sixty bushels per hour. The very best lumber and materials are used in making these Fans—their iron is all turned and polished smooth, so that they work easier than most Fans—are simple in their construction, but will clean all kinds of GRAIN!

The Hoppers are large and only require the grain to be thrown into them and they feed themselves.

Don't be deceived by appearances. Some Fans are made at Henderson which resemble them, but unless my name is brazened on them, they are not mine.

Having located a Branch at Graham, Alabama co., he will furnish to the Planters in that and surrounding counties Fans at the same rate, delivered as heretofore from Henderson.

N. B. Every Fan is warranted perfect. Retail price \$50—a liberal discount made to the trade. I will also furnish to order Wheat Drills, Horse Powers, Thrashers, Corn Shellers, Stalk Cutters, Chain Pumps, &c., of northern manufacture on the most liberal terms, all of which samples are kept constantly on hand.

I return my thanks to the citizens of Granville and surrounding counties, for the liberal patronage I have heretofore received, and which I shall endeavor to continue to merit.

C. BURNETT.

Henderson, N. C., June 1st, 1855. 4-ott.

TO SOUTHERN AGRICULTURISTS.

An intelligent, steady and practical farmer, who has had 25 years' experience in the most productive wheat and stock regions of Maryland, offers his services as manager on some large estate in the South—he is perfectly familiar with the management of slaves, and can furnish the most ample testimonials of his character from the highest sources in that State. His qualifications as a farmer and stock raiser are such as is rarely to be found any where. Address

"AGRICOLA," Washington, D. C.

THE ORANGE IMPROVED STUMP MACHINE.

PATENTED MARCH 6TH, 1855.

FRIENDS OF AGRICULTURAL IMPROVEMENT:—

Having just secured a patent on my IMPROVED STUMP EXTRACTOR, upon the crotch and steady principle, I am free to say that I wish this Machine brought into general use, because I need some compensation for the pains I have taken to bring it to its present state of perfection, and because it is desperately needed—for much beautiful land in many States of the Union, is defaced by odious stumps. This Machine has no rival; its power is very great; its action very rapid, and hence, it may be made to hurl an acre of stumps from their dominion in a very short time.

I manufacture these machines at Orange, Mass., where I hold myself ready to furnish them, when ordered from any part of the country. The price will range from \$125 to \$150, according to *cost of chain*, and weight of iron. I should add, however, that the Machine is simple in structure, and with the Model I furnish, may be manufactured by any good and intelligent blacksmith.

My title claims Improved Patent, good for thirteen years, covers the nation, and I am ready to sell Rights to towns, counties, and States, at rates altogether reasonable. Please apply at once: my prices shall be low, my terms of payment easy, and if it is wished, I will take real estate or other property in exchange.

Yours very respectfully, W. W. WILLIS.

Orange, April 1, 1855.

So a few good AGENTS wanted to Exhibit and sell this Machine in different quarters of the Nation



These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Scrofula, Salt Rheum, Fevers of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of Piles, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also



A remedy for Coughs, Colds, Catarrh, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a deranged state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, in weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expectant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Symplics, Balsams, or Sarsaparillas, that were ever made; and a simple trial of only one box will prove this important truth.

They promote Expectoration, loosen the Phlegm, and Clear the Lung, and the Secretory Organs, of all morbid matter, and there is no another remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. They Cause Costiveness, produce a good, regular Appetite, and Strengthen the System.

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the Agents' Advance cards, giving full particulars and certificates of cures.

Both kinds of the above-named Pills are for sale in Every Town and Village in North and South Carolina.

And at Williams & Haywood, Raleigh, N. C. May 1855. 3—

TO PLANTERS.

THE UNDERSIGNED HAS BEEN appointed Agent for the sale of "KITTLEWELLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of Cotton and Corn, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to the yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by HENRY NUTT, Agent for the State of North Carolina, at Wilmington. 2—

PURE MERINO SHEEP FOR SALE.

I HAVE A FEW YEARLING RAMS, AND Ewes, from one to three years old, which I will sell. Also three Rams older, and very choice. They can be sent to any part of the country with safety—For prices, &c., apply to T. C. PETERS, Darien, Genesee Co., N. Y.

May 1855.

tf.—

NORTH CAROLINA MUTUAL LIFE INSURANCE COMPANY. Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the MUTUAL PRINCIPLE, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$50, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 30 days after satisfactory proof is presented.

DIRECTORS.

CHARLES E. JOHNSON,	WM. W. HOLDEN,
WM. D. HAYWOOD,	WM. D. COOKE,
JAMES F. JORDAN,	R. H. BATTLE,
H. W. HUSTED,	WM. H. JONES,
WM. H. MCKEE,	F. C. HILL,
CHARLES B. ROOT,	SEATON GALES.

OFFICERS.

DR. CHARLES E. JOHNSON, *President*,
 WILLIAM D. HAYWOOD, *Vice President*,
 JAMES F. JORDAN, *Secretary*,
 WILLIAM H. JONES, *Treasurer*,
 H. W. HUSTED, *Attorney*.

CHARLES E. JOHNSON, M. D. } *Medical*
 WILLIAM H. MCKEE, M. D. } *Board of*
 RICH'D. B. HAYWOOD, M. D. } *Consultation.*

WILLIAM D. COOKE, } *Executive Com-*
 W. W. HOLDEN, } *mittee.*
 CHARLES B. ROOT,

J. HERSMAN, *General Agent*.

Communications should be addressed, (post paid) to JAMES F. JORDAN, *Secretary*.

NORTH CAROLINA MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 8th inst. the following persons were elected Directors and Officers for the ensuing year:

DIRECTORS:

J. B. G. Roulhac, Raleigh.
 Henry D. Turner, do.
 J. R. Williams, do.
 T. H. Selby, do.
 C. W. D. Hutchings, do.
 James F. Jordan, do.
 James M. Towles, do.
 James E. Hoyt, Washington.
 Alex. Mitchell, Newbern.
 Joshua G. Wright, Wilmington.
 John M. Jones, Edenton.
 W. W. Griffin, Elizabeth City.
 F. F. Fagan, Plymouth.
 W. N. H. Smith, Mufreesboro'.
 H. B. Williams, Charlotte.
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Raleigh, Jan. 9th, 1855.

ENGLISH CATTLE, SHEEP AND SWINE.

ALSO Mules and Merino Sheep from Spain. Selected and imported on commission to any Atlantic sea port in America, by Thos. Betts & Co., at Liverpool and Herts, England.

Circulars containing the prices of all kinds of English Stock, and the expenses from England to America, including insurance can be received by applying personally or by post to G. M. Miller 81 Maiden Lane, New York City. Agent for

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FARMER'S HALL, RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855.

no. 1—tl.

AYER'S PILLS,

A new and singular y successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fevers, Gout, Humors, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the hears all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

Dr. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

Hon. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINTHROP, Ex-Speaker of the House of Representatives.

ABRAHAM LAWRENCE, Minister Plen. to England.

† JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, DR. J. R. CHILTON, Practical Chemist, of New York City, endorsed by

Hon. W. L. MARY, Secretary of State.

Wm. B. ABBOT, the richest man in America.

S. LEEBARD & Co., Prop's of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been used, but evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded not of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should be as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulae by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few could be taken if their composition was known! Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge of the solution freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by self-styled men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal system—to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their regular action to health, and by correcting, whenever they exist, such derangements as are the origin of disease.

Being so wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

Practical and Analytical Chemist.

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THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

WILLIAM D. COOKE, PUBLISHER.

OL. 1. RALEIGH, N. C. DECEMBER, 1855. NO. 10.

Address of Hon. Thomas Ruffin,
OF ALAMANCE.

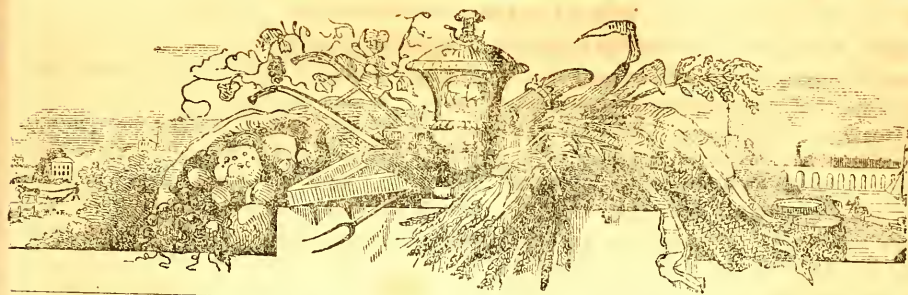
*Delivered before the State Agricultural Society
of North Carolina, Oct. 18, 1855.*

The duty has been assigned to me of making this assemblage of our fellow citizens the annual address on behalf of the Agricultural Society of North Carolina. I heartily wish for your sakes, as well as my own, that it had been allotted to some other person more competent to instruct or entertain. But, though reluctantly, I have undertaken it, that I might, if no other good should be done, show my concern in the welfare of the agriculture of North Carolina and its kindred arts, and say a word for their advancement and prosperity, under a confident assurance, indeed, of the kind consideration of North Carolinians for the imperfections of one who, though long unused to public speaking, is sincerely desirous, in any way he can, of manifesting to North Carolinians his chief editing and publishing, and endeavoring to make them satisfied with their situation here. In the first place it is fit, that to all here thanks for their attendance and a hearty welcome should be tendered. The purposes of the Society and the modes of effecting them, are generally known; and we invite the cooperation of all in the good work. Join in our association. Let every one add what he can to the general fund of agricultural knowledge. Enter

into the competition for improving tillage, perfecting and increasing the productions of the grains, the grasses, the vegetables, and the fruits of the earth, our animals and our implements of husbandry, and other manufactures; and exhibit here at our Fairs such things as you have. Indeed, those who bring only themselves are very welcome; for, after all, our men and women are our best productions, and it can only raise a just pride to see them gathered together to extend acquaintance, form friendships, gain and impart knowledge, honor agriculture, and thereby become the more content with our lot being cast in North Carolina.

Next, the Agricultural Society owes, and we ask the agricultural community to join in making, acknowledgments to the General Assembly for the pecuniary aid extended to the Society. Its usefulness depends chiefly on its ability to offer and pay premiums to exhibitors to such an amount as may stimulate competition and multiply exhibitions. A proper amount of premiums was larger than could be confidently counted on at all times from the fluctuating and uncertain contributions of annual subscribers and visitors at the Fairs; and, since our last annual meeting, the Society presented to the Legislature a memorial praying such assistance from the Public Treasury as that body might deem requisite to the advancement of agriculture and manufactures among us. I am happy to announce here, that, in compliance with the re-

W. H. Jones



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morial, a permanent annual appropriation of \$1500 was made for the payment of premiums, subject only to the reasonable and politic proviso, that within the preceding twelve months, the Society shall have raised the like sum for the same uses. The appropriation, if not fully adequate to the wants and claims of a people as agricultural as those of North Carolina, is yet of great benefit in many respects, and chiefly as permanently establishing the Society and Fairs, since, it cannot be supposed that the farmers and mechanics and traders of the State have hearts so dead to their duty and interest as to let them fail for want of contributions on their part to an equal amount. The present is the first occasion, since the grant, on which the Society has had the opportunity of acknowledging this legislative bounty, and we take much pride and pleasure in doing so.

Now, it may be asked: Is the agriculture of North Carolina worthy of this public patronage, and of the efforts of some of her citizens to promote and improve it? I answer, Yes—yes.—North Carolina is entitled to all, that every one of her people can do to promote her prosperity and elevate her character; and her sons will be amply remunerated for their efforts for her advantage and their own. Our occupations are essentially agricultural, and embrace all its variety of pursuits—planting, farming, breeding of live stock, and the culture of fruits. Until very recently they were almost exclusive agricultural, as there were natural obstacles to foreign commerce, difficult to overcome, and but few manufacturing establishments among us. In both these respects progress has been made and is making; and there is good ground of hope, that before long fleets of our own merchantmen will sail from our shores, richly laden with our productions for sale or exchange in the ports of our sister States and foreign countries; while factories of various kinds, now established in different parts of the State, will be multiplied beyond any present calculation that can be made, not only for the fabrication of the most useful implements of wood, iron, and other metals, but for our supply of those fabrics out of the great Southern staple, cotton, which have become indispensable. Manufactures are already, without doubt, material helps to agriculture, by diversifying employments, increasing the consumption at home of our crops and stocks, and supplying on the spot and without

delay many articles needful to the planter and farmer. In time they will become a more distinct, productive, and influential item in our political economy; but never, I think, as the rival or foe of our agriculture, but as a faithful friend and servant. As yet, however, the cultivation of the earth is the great and productive business of North Carolina. It has made us hitherto a thriving and happy rural people.—We are still so; and it will make us still more so, as it becomes improved and more productive. Why should not the agriculture of North Carolina be as improveable and improved, and her sons engaged in it, as prosperous and happy as those of any other parts of our country? No reason of weight can be given in the negative, if we will but strive for improvement.—Every thing is in our favor if we will make the effort and use the proper means; and of that every one may be satisfied if he will observe and reflect on what is around him.

The profits and the comforts of agriculture depend mainly on climate, soil, labor, and the facilities for disposing of surplus production. The two first, climate and soil, should be congenial to products requisite for the sustenance of the husbandman himself, and in demand for others who cannot produce for themselves. In both points North Carolina is highly blessed. In her position on the globe she occupies that temperate and happy mean, which is conducive to health and the vigorous exertion of the faculties and energies of body and mind, in employments tending more than all others to the hospitalities and charities of life and the other virtues of the heart, and which constitutes a climate, that, in union with her fertile soil, yields abundantly to the diligent tiller nearly all the necessaries and many of the luxuries required by man. We do not work barely to maintain life; but, beyond that, to realize gains that may be employed in the addition of other things productive of the elevation and refinement of civilized man. Our winters, by their duration and rigor, do not confine us long within doors, nor cause us to consume the productions of our labor during the other parts of the year; but we are able to prosecute our field operations and comfortably pursue our productive employments throughout the four seasons. Though not of such extent of latitude as thereby to create much variety of climate, and consequently of production; yet the dimensions of North Carolina,

east and west, supply that deficiency in a remarkable degree. The proximity to the ocean of her eastern coast, and the difference in elevation between that and the mountains of the west, with the gradations in the intermediate regions, produce a diversity of genial climate which gives to North Carolina, in herself, the advantages of many countries conjointly. By nature, too, her soil was as diversified and as excellent as her climate. The rich alluvial of the east, the extended and extremely fertile valleys of the many long streams—the Roanoke, the Tar, the Neuse, the Cape Fear, the Yadkin and Pedee, the Catawba, and the other rivers, which appear upon our map, besides those of smaller streams, almost numberless, all, at a moderate expense of care and labor, return large yields of nearly every grain and other production fit for food. Rice, maize, wheat, rye, barley, oats, the pea, the potato of each kind, besides an endless variety of other sorts, vegetables, and fruits, are found abundantly therein; while higher up the country, in addition, the grasses grow so readily and luxuriantly as to afford not little plots on the moist bottoms of brooks, but extensive pastures and magnificent meadows to the mountain tops. Then, there are the great articles of cotton and tobacco, so extensively used and in such great and increasing demand—to one or the other of which the greater part of the State is eminently suited. Of fruits, melons of every kind and of the best qualities, apples, peaches, pears, cherries, nectarines and apricots flourish almost everywhere, as do also the smaller, but most valuable kinds, as the strawberry, the raspberry, the gooseberry, currants, and, above all, our native grapes, the sweet and prolific Scuppernong and the rich Catawba, which mature well, besides some of foreign origin. When to these are added the fish, with which our eastern waters abound through the year, but are alive in the spring—our naval stores and lumber, our marls, our minerals, gold, silver, copper, and especially the extensive and rich deposits of iron ore, and the coals, one may confidently ask, is there any other country which contains or produces more or a greater diversity of things to sustain life or to bring money? And then let me enquire of you, North Carolinians, what better country do you want than your own? I hold it is good enough—too good, I am tempted to say, for sinful man. It requires only to be dressed and tilled to give

nearly all we want on earth, and much for our fellow man less happily situated. There may at some time be a stint below our usual abundance; but we need never fear a famine here while we work. Indeed, that calamity can hardly befall a country where maize—which we call Indian corn—grows to perfection. There is no record of a dearth, approaching famine, where the principal crop was maize, as it is here. Our climate and soil are so congenial to the other cereals, that a failure of that crop from an unpropitious season is necessarily perceived in time to provide the others, or some of them, as a substitute.

Such is North Carolina! Here she is, and let any man say, who can, whether she be not in everything as she has now been held up to him. Then, why should any leave her? I trust the period of her people's deserting her and seeking—what they never found—a better place, is near its end, and that they will cleave to her and exalt her by uniting in an effort to render her, by increased fertility, yet more teeming in her productions, and to embellish her with durable and tasteful habitations, gardens and lawns, with substantial farm houses, with orchards and every other thing that can make her beautiful in our eyes and fasten our affections on her. True, the soil is not what it once was, and our task is not merely to preserve fertility, but in a great degree to restore that which has been more or less exhausted. We must not blame our ancestors too hastily or too severely, for the system under which the rich vegetable loam they found here was so used up. The labors and hardships of settling a wild country leave but little opportunity for more than preparing for cultivation and cropping such parts of the land as absolutely necessary for maintaining the colony. Land was in plenty—timber an incumbrance, and labor scarce and costly; so that, in reality, it was cheaper, and the sounder economy in them to bring new fields with their exceeding superficial fertility into culture, rather than manure those which they had reduced by imperfect tillage and scourging cropping. Throughout America the land suffered by the exhausting operations of the settlers and their descendants for several generations; but that can only go on to a certain extent, and then it must stop. When getting to be so reduced as not to pay for cultivation, necessity forbids a further reduction of the soil, and then the process of regen-

eration begins. At first it proceeds slowly; but every degree of improvement furnishes means for still greater, and accordingly it increases its pace, and by improved culture, manures, rotation of crops, and the like, it ends in a productiveness beyond its original capacity.

If not to the lowest, certainly to a very low condition, much of the land in the State had been brought; and the time came, when, if improvement was ever to be made, it would be commenced. I use the expression, "the time came" instead of "has come," because it is a joyful fact, that some persons in various parts of the State, many in some parts, have improved, and continue to improve their lands and increase their crops—profiting much therefrom in their fortunes and setting the rest of us examples by which we ought also to profit. We have all heard for some years past, that the era of improvement had begun in the great and wealthy county of Edgecombe; and I learn from unquestionable sources, that the intelligent and enterprising planters of that county have been rewarded by signal success. I do not propose to enter into a detail of their system further than to say, that it consists chiefly in draining by ditches and embankments, making and applying composts, the use of guano and plaster of Paris, and the field-pea as an ameliorating crop, as well as food for stock. I advise every one, however, who has the opportunity, by minute enquiries to obtain from those who have put this system into use, detailed information respecting it; and I feel no hesitation in preferring a request to the planters of Edgecombe, as public-spirited gentlemen, to communicate through our agricultural periodicals, the history of their improvements, and their experiments—as well as those in which they failed as those in which they succeeded, with all other matters which may be useful to their brethren in other sections.

In other parts of the country, with which I am more intimately acquainted, much improvement has been made, to my own knowledge.—Of the counties ranging along our northern border, from Warren to Stokes, inclusive, I have had for about fifty years considerable knowledge. That was the principal region of the tobacco culture. According to the course of that culture, wherever it prevailed in our early annals, the country was cut down rapidly, cropped mercilessly with a view to quantity

rather than quality, then put into corn, and exhausted quickly and almost entirely. When I first knew it, and for a long time afterwards, there were abounding evidences of former fertility, and existing and sorrowful sterility.—Corn and tobacco and oats were almost the only crops. But little wheat and no cultivated grasses were to be seen in the country. Warren and Granville bought the little flour they used from Orange wagons. Large tracts were disfigured by galls and frightful gullies, turned out as "old field," with broomstraw and old-field pines for their only vesture, instead of their stately primitive forests, or rich crops for the use of man. This is a sad picture. But it is a true one; and there was more fact than figure in the saying by many, whose work of destruction rendered that region so desolate, and who then abandoned it, that it was "old and worn out." Happily, some thought its condition not so hopeless, and, cherishing their attachment for the spots of their nativity, within these few years—since the time of river navigation and railroads began—set about repairing the ravages of former days. Do you suppose they were content with less crops, and therefore that they cultivated less land than before, leaving a larger area to natural recovery by rest? That was not their course. They did not give up the culture of tobacco, but greatly increased it, and corn also; and they added to their rotation, wheat, when so much more easily and cheaply carried to market.—But they greatly increased the collection and application of manures from the stables, and the cattle yards, with considerable additions of the concentrated manures obtained from abroad, and protected the land from washing by judicious hill side trenching and more thorough plowing. The result has been, that many old-fields have been reclaimed and brought into cultivation, the lands generally much increased in fertility, and of course, in actual and market value in the like proportion, while the production has, probably, doubled in quantity and value in all the range of counties mentioned. Such examples are honorable to those who set them, and useful to others, who desire to improve. For that reason I have thought it proper thus to signalize them, as I would gladly do others, which may, and I hope do exist, were I as well aware of them: contenting myself with adding only, that

I think I see the dawn of a better day in the county of my own residence and those contiguous. For our present purpose, it is sufficient that we can hence learn that the effects of the most injudicious and destructive cropping may be repaired by good husbandry, in the use of fertilizers saved on the farm, and others, which are becoming better known and more attainable than formerly; and thus all the outlay will be more than reimbursed at a short day by the increase of products, besides enhancing the value of real estate. Thus will our agriculture be rendered as pleasing and as profitable as that of the most favored portions of the earth.

Then let me say once more to you, men of North Carolina, stick to her, and make her what she can be and ought to be. For you and your sons she will yield a rich harvest: to some "thirty fold, some sixty fold, and some an hundred fold," according to the skill and diligence with which the tillage of the good ground is done.

The nature of the labor employed in our agriculture is the next subject for our consideration. It is a most important element in the cost, amount and value of production. I very frankly avow the opinion, that our mixed labor of free white men of European origin and of slaves of the African race, is as well adapted to the public and private ends of our agriculture as any other could be—making our cultivation not less thorough, cheap, and productive than it would be, if carried on by the whites alone, and far more so than the blacks by themselves would make it; and, therefore, that it has a beneficial influence on the prosperity of the country, and the physical and moral state of both races, rendering both better and happier than either would be here without the other. Of course, I am not about entering into that controversy which has connected itself with the contentions of different factions, struggling for political power. It is unnecessary that I should; for every one is aware, I believe, of the nature of the controversy and the motives of the parties to it. It is one of the conservative effects of slavery to impress on us a deep conviction of the inestimable value of the Union, and a profound reverence for the Constitution which created it; and hence we habitually cherish a good feeling, as of brethren, towards our fellow-citizens of every State, and any deed or word tending to impair the perpetuity of the Union

and the efficiency of the Constitution and the laws passed in accordance with it, or to alienate the affections of the people of the different States from each other, is seen with impatience and frowned on with indignation. Indeed, if there were any thing in slavery or the interests connected with it incompatible with that fundamental law, I doubt not that our people would willingly abide by that sacred instrument, though it should cut off a right hand or pluck out a right eye. But there will be no occasion for a display of our loyalty in that respect, since the Constitution clearly recognizes our slavery, sustains the rights of ownership, and enforces the duty of service; and I am persuaded, that the obligation of those provisions and their execution will be ultimately pronounced and carried out by those on whom the Constitution itself confers the authority.—My purpose now, however, is merely to maintain that slavery here is favorable to the interests of agriculture in point of economy and profit, and not unwholesome to the moral and social condition of each race. In support of the first part of the proposition, a decisive argument is furnished by the fact that the amount and value of the productions of slave labor in this country exceeds those of similar productions, nay, of all other agricultural productions, of an equal number of men in any other country, as far as they can be ascertained. In some localities, indeed, and in respect to some articles of great value, the production would cease, or nearly cease, with slavery; since the blacks by the Constitution inherited from the African ancestors, can labor without detriment, under degrees of heat, moisture and exposure, which are found to be fatal to the whites, whose systems are better adapted to different conditions of the atmosphere. In truth, if the free men in those States in which slavery prevails be allowed credit for common sense and the capacity to understand their own wants and interests, the utility of the employment of slave labor and its productiveness are established beyond controversy, simply by the fact, that it is done. Men who are thoroughly versed in the practical operation of any institution, certainly will not, to their own prejudice, uphold it from generation to generation, and cling the closer to it as by its natural extension it becomes more and more destructive. If it be said that the continuance of slavery does not

prove its utility to the Commonwealth, because it was continued of necessity and would have been, however impolitic it might be found, we must own some force in the suggestion, by itself, since at all times after its introduction it would have been difficult to get rid of it, and that difficulty has been continually increasing. It was much easier for those who now condemn so strenuously our toleration of slavery, to capture and enslave the helpless Africans and bring them here, than for us, without crime yet more heinous, to renounce our dominion over them and turn them loose to their own discretion and self-destruction. Their fate would soon be that of our native savages or the enfranchised blacks of the West Indies, the miserable victims of idleness, want, drunkenness, and other debaucheries. But the argument goes only to show that we would have done right—even though enforced thereto by the necessity spoken of—in still holding those people in bondage. It is far from showing that slavery would not have been and ought not to have been maintained, though there had been no such hypothetical necessity for doing so. Furthermore, there are numerous facts to prove a clear opinion to the contrary in every class of our population.—When did any man, for example, leave North Carolina in order to get clear of his slaves or of slavery? We have, indeed, a respectable and peaceful religious society—less numerous than formerly—who are forbidden by an article in their creed from holding men in slavery. Even they never warred or contended against this institution here, nor sought to seduce or spirit away their neighbor's slaves; but like the quiet and Christian men they professed to be, they left us and immigrated chiefly to the States of the North West, in which slavery did not exist. With that slight exception, the public sentiment is so generally satisfied with the existence of slavery and its propriety here, that it may properly be called universal. Some men have emancipated some or all of their slaves by sending them to other States. But I know not of an instance in which the former owner went with them, or left North Carolina because other owners would not follow their example. On the contrary, when our slaveholders remove, they carry their slaves with them further south, where slavery is, if possible, more firmly fixed than here, because they expect the labor of the slaves to be more productive. Be-

sides, there are many inhabitants of this State who do not hold slaves, some from choice and some from inability to purchase them, and nevertheless, they are content to abide among us and our slaves. And it is also true, that even when those men migrate, much the larger part of them likewise go to the south of us in the thick of slavery, because they hope to make a greater profit from their own exertions. These facts, which cannot be denied, will bear reflection, and furnish evidence sufficient to satisfy any fair mind that there is an unanimous conviction of our people, that slavery, as it exist here, is neither unprofitable, nor impolitic, nor unwholesome. For certainly, though slaveholders, we may claim to possess as clear understandings, and as clear consciences as generally fall to the lot of other men.

It would, indeed, be otherwise, if it were true, as supposed or set forth by some, that slavery degrades free labor, and, consequently, that our population are too proud or too lazy to work, and become, especially slave owners, dissolute, and profligate in morals, as well as atrocious tyrants. But that is not true—not all true; and there never was a greater mistake than to suppose it true. It cannot but excite a smile in us, who know the contrary so well, when we are told that white men do not work here, and that they do not because it is considered disgraceful. Why, there is not a country on earth in which honest labor and diligence in business in all classes and conditions, is considered more respectable, or is more respected. We, like every other people, have the idle and vicious amongst us. But they are chiefly those who have the least connexion with slaves, and particularly those employed in agriculture, and are to be found, without means, lounging about cities and villages. Many most independent farmers, who own slaves, but not enough to make their superintendence full employment, work, they and their sons, with their slaves; and it is sure, that no one here ever treated them or thought of them as disgraced by it. Indeed, every one, who by intelligence, integrity, and industry, provides for himself and his household either in the field or at the forge, or any other mechanical pursuit, is as highly respected here, as in every other well-ordered community; and many of them are of great and useful influence in society.

It is a mistake, too, equally notable, that slaveholders are above or exempt from the cares and the business of life; and it is a gross calumny to represent them as the ruthless and relentless tyrants, of whom some persons delight to draw over-charged and exaggerated caricatures. Although the labor of a large slaveholder is not manual, yet it is not the less engrossing and onerous; and the feelings between masters and their slaves in the great bulk of our population is kindly on the part of the former, and affectionately faithful on the part of the latter.—Slavery, indeed, is not a pure and unmixed good. Nor is anything that is human. There are instances of cruel and devilish masters, and of turbulent and refractory slaves, who cannot be controlled and brought into subjection but by extraordinary severity. But these are exceptions, and rare exceptions. Great severity in masters is as much opposed to the usages of our people as to the sentiment of the age, and, indeed, to the interest of the master. Moderation in the punishment of dependents is founded in nature; and unjust, excessive and barbarous cruelty is not to be presumed, but quite the contrary. The meek man who led the Israelites through the wilderness, and legislated for them by inspiration, understood this better than those who point us so frightfully, without knowing much about us. In treating of the different degrees of homicide, he had regard to the known motives of the human heart, and thereon founded the presumption, that the slaying of a slave by the master, is by misadventure, “because he is his money,” unless it should be rebuked by such excess in the degree or duration of the infliction as to make him “die under his hand,” and thus evince that discipline was a pretence, and the killing of designed malignity or wanton brutality. I appeal to every one, if our experience is not in accordance with the divine statute. The same motive induces the master to be observant of the health and morals of his slaves; to care for them, and to provide for them; to restrain them from baneful excesses, and employ them in moderate, though steady labor. That this is the course—the established habit of the slaveholding portion of the country, is plainly to be deduced from an increase in the numbers of our slave population beyond the ratio of natural increase in the population of any other nation;—which could only arise from the abundant supply of the necessa-

ries and comforts of life, and a contented state of mind.

But the interest of the owner is not the only security to the slave for humane treatment; there is a stronger tie between them. Often born on the same plantation, and bred together, they have a perfect knowledge of each other, and a mutual attachment. Protection and provision are the offices of the master, and in return the slave yields devoted obedience and fidelity of service; so that they seldom part but from necessity. The comfort, cheerfulness, and happiness of the slave should be, and generally is, the study of the master; and every Christian master rejoices over the soul of his slave saved, as of a brother, and allows of his attendance on the ministry of God's word, and sacraments, in any church of his choice in his vicinity. The condition of a slave denies to him indeed, opportunities of education sufficient for searching the Scripture for himself, and working thereout his own conversion; but God forbid that should be necessary to salvation! It is not; for to the poor and the unlettered the Christian graces are promised and given in an especial manner, because they have less pride of intellect, more simplicity of faith, and more singleness of heart; and among the slaves of this country there are many exemplary Christians. Indeed, slavery in America has not only done more for the civilization and enjoyments of the African race than all other causes, but it has brought more of them into the Christian fold than all the missions to that benighted continent from the Advent to this day have, or, probably, those for centuries to come would, excepting only the recent Colonies of blacks on the western coast of Africa, by which one may hope and believe that under divine direction the lights of civilization and the knowledge of the true God may be reflected back on that whole land. Such are some of the beneficial effects on that race of their connexion with us. Upon the slaveholder the impressions are not less distinctly durable, nor less beneficial. He is habitually a man of employment. As in military life he must train his troop to their duties, lay out their work, and superintend its execution; and by a mild and just, though firm discipline, reward and punish according to their deserts; and he must never fail in sympathy with them in regard to innocent enjoyments at proper times, and their needs in sickness and in health.

Sometimes matters, very trivial in themselves, have exceedingly great effect in improving the slave and uniting him to his owner. I know a gentleman, one of the most successful planters, who produced a marked change for the better among his slaves, by the small boon of a cheap looking glass for each of their quarters. Another bound his people to him by a devoted affection, by joining with solemnity in their processions at the burial of their dead, in a grave-yard which he had protected by a plain post and plank enclosure.

It is a great error in those who do not know our slavery, to confound authority in the private relations, though it be that of a slave owner, with the absolute power of a prince on a throne. A political despot is separated from his subjects. He knows them not, nor loves them. He sympathizes with none of them, but their positions and feelings are in constant hostility. But authority in domestic life, though not necessarily, is naturally considerate, mild, easy to be entreated, and tends to an elevation in sentiment in the superior which generates a human tenderness for those in his power, and renders him regardful alike of the duty and the dignity of his position. It is only when the authority is disputed and resisted, that a conflict occurs; and the slaves, if kept to themselves, unprompted from without, will seldom give occasion in that way for rigor. Why should this propitious state of things be changed? Why should any one wished it changed? Especially, why should persons who have no concern in it, who are not of us, and know not what they do, officiously interfere in a relation so entirely domestic and delicate? We know that our slaves are generally humble, obedient, quiet, and a contented and cheerful race of laborers. Scattered over the plantations in rural occupations, they are never riotous or dangerous, as the same number of uneducated working men have often been in other parts of our country. Slaves are no part of the State, with no political power, and seek no violent or sudden changes in the law or policy of the country; and where slavery exists labor and capital never come in conflict, because they are in the same hands, and operate in harmony. It is not, then, a blot upon our laws, nor a stain on our morals, nor a blight upon our land. A signal instance of its beneficial political influence just occurs to me, to which I cannot refrain from asking your attention. The sad fate of the Indian tribes in the territories,

now forming the United States, is familiar to every one. With the exception of a few small remnants, seated among the whites, as a degraded caste, in one or two of the northern States, all belonging to that region are extinct. They had no separate property, and therefore they never engaged in the pursuits of civil life, and could not be civilized. They were killed up in wars with the whites, or, at their instigation, with each other, deprived of their land, and consequently, with reduced supplies of food by the diminution of game, and brutalized by intemperance, they wasted away while they were yet savages. The same fate befell most of those at the South, and from the same causes. But there are exceptions worthy of grave consideration. There were five large tribes on this side of the Mississippi—the Cherokees, the Creeks, the Chickasaws, Choctaws, and the Seminoles. The two former were nearer to us, and, indeed, part of their territory was within our borders. Therefore we are more familiar with them, and I will speak only of them, though I believe the same is true of all of them. The Cherokees and Creeks suffered losses of land and people like the other tribes; but they differed from them in one circumstance, and only one, from which, however, most important consequences resulted. It so happened, that, while yet respectable in strength, they got, in some way—by capture or purchase—some negro slaves. Immediately there was a change in their whole polity, which preserved their existence, and increased their numbers and their wealth. The acquisition of slaves gave them the idea of property in individuals, and in order to make the labor of the slaves beneficial, a qualified property in the lands occupied by each Indian, and worked by his slaves, was recognized by the nation, and the pursuits and arts of civilized life were established among them; farms were extended, dwellings erected, traffic practised, clothes worn after the fashion of the whites, schools and churches opened, and the red man became as the white man in his occupations, property, education, and religion. And now those tribes form intelligent and thriving people beyond the Mississippi, with enlarged knowledge, property and power; with a printed statute book, with a legislative body, and regular tribunals of justice. Such works hath American Slavery wrought upon those tribes! Is that a reproach to it? And is it not marvellous that, still, it should be pursued by

persons having no knowledge of its practical operation, under a phrensy against slavery in the abstract, fatally bent on its restriction and destruction, though they thereby should desolate our fields, desecrate our altars, and cause the blood of both races of our people to flow in rivers? Such philanthropy is both fanciful and ferocious, and must gall and irritate, and may, to a certain extent, alarm some. But I believe we need not apprehend much danger to our personal rights or political institutions. Occasionally demagogues may sway popular or legislative majorities against us. But it can only be for a season, and a short season. For, in every part of our beloved country there are men, and, I trust, many men, of sound heads and sound hearts, who are as able as we to understand and explain the constitution, and calculate the value of the Union as justly. Such men must have great influence in society, however it may be constituted, and will assuredly instruct, persuade, and lead back the masses to a due regard for the Constitutional rights of their fellow-citizens—not less their fellow-citizens because living far apart—for multitudes, proverbially prone to change, never do so more readily, than when under the guidance of wise and good men, they can retreat from an extreme wrong, and escape from the denomination of those who dishonestly led them into it. The very excess of the error ensures its speedy perception, and a more perfect reaction. I believe we shall be one people again in good feeling; and therefore I cherish the spirit of brotherhood even towards those who may now seem to hold it in the least respect; and in that I only sympathise, I am sure, with the great bulk of my fellow-citizens at home.

On the remaining point, on which the interests of agriculture, and, indeed, of all other employments depend—namely, the facility of transportation, I have to offer to all North Carolinians heartfelt congratulations. The carriage of bulky and cheap articles long distances in wagons over bad roads, was a great draw-back on the profits of capital and labor for a long time here. Some relief in particular parts of the State was derived from even the imperfect improvement made in the navigation for boats on a few of our rivers. But it was far below the wants and demands of the people; and afterwards resort was had to Railroads. The wonders worked by steam, and railways are indeed astonishing throughout the world. In no part of it can they be more re-

quisite or beneficial than in this State, the extent of which and the want of navigable waters at only a short distance from the sea, rendered them indispensable. Every one, therefore, ought to commend the legislative policy in providing them, and in extending them, from time to time, as the funds of the State may be found adequate. It will not, I trust, be going out of the way, while on this subject, to say a word in honor of the memory of a great and good man, who first presented the utility and construction of Railroads to the notice and patronage of this State; I allude to the Rev. Dr. Joseph Caldwell, the late eminent and zealous president of the University. Upwards of thirty years ago he visited Europe on the business of the College, and there saw such roads in use; and soon after his return, I remember, he published a series of essays under the signature of "Carlton," in a newspaper printed in this city, explaining the practicability of their construction and earnestly urging a central one from Buncombe to Beaufort. The novelty of the subject and the dread of the expense, operating upon timid counsels, prevented his suggestion from being then adopted. But it is honorable to his sagacity, that at the late session of the legislature charters were granted for completing a line of Railroad on the very route recommended by him, when probably it was unknown or had been forgotten by the acting generation of legislators, that he had ever advocated the measure. I shall be pardoned for desiring to rescue from oblivion for a brief space longer his early service in a cause now so generally and justly advocated, and of such surpassing importance.

I have thus endeavored to lay before you the resources and advantages enjoyed by North Carolina, and her capacity to supply the wants of man, and satisfy his reasonable desires for accumulation and the higher enjoyments of both laboring and educated and more refined men.—It has been done without setting up any claim for her, which I do not believe to be well founded, or any statement in which I do not expect your concurrence. In truth I now, have said nothing and I have not sought so much to impart information as to excite reflection on what you already know.—For we take no note of things that we see every day, and it is a more common fault not to make a proper use of knowledge, than it is not to possess it; to fail in duty, not because we are ig-

norant of it, but because we are indifferent to it. My purpose has been to present to you, with much plainness of speech, things that none can deny and are fully known among us. You know that all these things are true. If they be, let them make their impress on our minds and hearts, that we may be duly sensible of, and thankful for, the goodly bounties of health, competence and wealth, which may be derived from the agriculture and other occupations of North Carolina.

I am quite sensible that I have performed most defectively the task set for myself. After the lapse of more than thirty years since I engaged in public discussion, I ought not to have undertaken it, and regret that I did so, especially as this address has been hastily prepared under many disadvantages. I beseech your forgiveness, and will make the best reparation now in my power, by promising not to offend in the same way again; and, as I have very nearly arrived at the scriptural limit of man's life, I think I may, in conclusion, safely make the promise. I cannot close, however, without asking you once more to cleave to North Carolina. Stay in her, fertilize her, till her, cherish her rising manufactures, extend her railways, encourage and endow her schools and colleges, sustain her institutions, develop her resources, promote knowledge, virtue, and religion throughout her borders, stimulate State pride, and exalt her to renown: And may the blessing of Almighty God be upon each one of you, and on all North Carolina, and make her good name and fair fame endless!

From the New-England Farmer.

Third Exhibition of the U. S. Agricultural Society.

The third annual Exhibition of the United States Agricultural Society opened in this city, on Tuesday last, and will continue through this week. The show is fine, fully realizing the high expectations that were entertained in regard to it. The number of entries is very large, all the arrangements are made with admirable taste and judgment, and the grounds are thronged by thousands of admiring spectators.

GENERAL ARRANGEMENTS.

The Exhibition is held on a lot of about thirty acres, in the south part of the city, which is

enclosed with a board fence ten feet high. The main entrance is on Harrison Avenue, opposite Franklin Square. As the visitor approaches the ground from Franklin Square, the first thing that attracts his attention is the beautiful arch which spans this entrance, and which is supported by two noble towers forty feet in height. Over these towers wave the "Stars and Stripes." The arch bears the simple inscription, "U. S. AGRICULTURAL SOCIETY." On either side of the entrance are the windows for the sale of tickets. There are twenty of these—so that no delay need be apprehended in procuring tickets. Further south there is another entrance, over which a plain arch has been erected. Visitors with tickets will be admitted here also. Midway between these entrances, and opposite the judges' stand, is a wide gate, which will be opened at the conclusion of each day's exhibition, to allow the multitude to retire from the grounds.

When within the enclosure the visitor will be pleased with the excellent arrangement of the grounds. On the right of the main entrance are seats for ten thousand people. These seats are erected in the most substantial manner, and are capable of supporting a much greater weight than it will be possible to put upon them. From these seats a fine view of the whole field can be obtained. On the left of the main entrance the stalls for horses commence, and they and the cattle stalls are continued round the entire enclosure, until they reach the southerly end of the seats on Harrison Avenue. There are between six and seven hundred of them. The stalls are all covered over with white duck, and scalloped fringe runs along the front. This covering and festooning gives to the stalls a very neat and pretty appearance. Each breed of horses and cattle is arranged in a distinct department, which is designated by a large sign raised over the stalls they occupy.

The ranges for the sheep and swine are erected on the north-east corner of the lot. They are substantial pens, with roofs to protect the animals from the weather.

For the purpose of showing the horses to the best advantage, a fine track, forty feet wide and half a mile in length, has been prepared. It is of an oval form, with no sharp corners, and is rolled perfectly smooth and hard.

The Judges' stand is a large octagon tower seventy feet high, with a piazza running al

ound the same on the ground line, making this floor twenty feet square, and two feet up from the ground; this will be occupied by the representatives of the press. Twelve feet above, is another floor, with a balcony running around the same, four feet outside the floor, to be occupied by the judges. Above this there is still another story, which will be occupied by ladies. The tower is arched on every side and story, and is handsomely ornamented with brackets, rustics, ballustrades, and with American flags, one of which surmounts it, and others are extended from the different stories.

Just south of the tower is a music stand, in the Gothic style. This is occupied by an excellent band of music.

Four water temples of the same style of architecture as the tower, are erected at different points of the green inside the race-track. At these the multitude will be enabled to slake their thirst with the pure Cochinuate.

On the green, within the ellipse, are several tents. The one which is nearest the main entrance is the President's Reception Tent.—Another tent is devoted to the reporters, and others are provided for the accommodation of ladies. Directly in the rear of these tents, and at the centre of the ellipse, is "Wright's mammoth tent," beneath which the agricultural banquet is to be held on Friday afternoon. It is floored, and will be lighted with gas. The tables will be spread for two thousand guests, and there is no doubt that every plate will be occupied. Among the eloquent men announced to be present are Messrs. Everett, Choate and Winthrop of our own State, and others from all parts of the Union. With favorable weather, this banquet will be a magnificent Fair.

Across the track, and between that and the cattle pens, is another large tent, beneath which Mr. Wright has provided tables and the other necessary paraphernalia for feeding the multitudes from day to day.

On the easterly side of the enclosure, outside the range of stalls, is a large wooden building, in which is the Executive Committee's room, which is furnished with sofas, lounges, &c. In the rear of this, is a large room in which are tables for each of the several committees to award premiums. In the centre are tables sufficiently large to dine three hundred

persons at a time. Precisely at one o'clock each day, dinner will be on the table—and the officers of the society, their invited guests, including the representatives of the Press on the ground, will dine there. Mr. Wilder, the President of the Society, will officiate at the head of the table each day.

OPENING OF THE EXHIBITION.

The weather was fine on Tuesday, and at an early hour, the visitors poured into the vast enclosure, and the scene upon the outside and in the streets leading to it exhibited an unusual amount of activity. The arrangement of the various tents, the trotting course, accommodations for the public, and for the large number of animals which were entered, presented a fine appearance.

Gen. Tyler, the chief marshal, and a host of assistants, appeared on the ground at an early hour, dressed in a neat gray uniform, with a style of hat of a comfortable character, got up for the occasion. A large police force was also present, and it is highly creditable to the crowd who were present, to say, that their behavior was such as to require no coercive measures to keep them in good order.

At ten o'clock the bugle sounded the call for the cavalcade, when Mr. Wilder, the president of the society, announced the exhibition open, to continue during the week. The cavalcade was headed by the chief marshal, and formed an exhibition which no one should fail to witness at some time before the close of the anniversary gathering. The cavalcade consisted of eighteen or twenty pairs of elegantly matched and beautiful horses, singly, in gigs and other carriages, and about eighty which were ridden or led, including some ten or fifteen colts.

EXHIBITION OF STALLIONS AND MARES.

At 11 o'clock a call was made for the stallions, mares, &c., (roadsters,) for exhibition and trial of speed. These were driven round the track twice, the first time slowly, and the second time at full speed. Those who took part in it were—North Horse, owned by Mr. North; Morgan Empire, James H. Chamberlain; Boston Boy, Adams Carpenter; Ethan Allen, O. S. Rowe; Black Hawk, J. E. Wayne; Stokbridge Morgan, John Bullard; Brom Horse, Charles Boylsten; Black Hawk Chief, Edgar Hill; Morgan Hunter. The quickest time made was 1.24, (distance one-half mile,) this was

made by Black Hawk Chief. Others made the half mile in 1.25, 1.34 and 1.36.

The next exhibition upon the track was of breeding mares, many of them with colts. Of these there were some twenty-five or thirty.—Among those that attracted attention were the Mary Morgan, of Limerick, Me., 9 years old, and the Jenny Lind, 9 years old, of Vergennes, Vt., the last of the Black Hawk breed. There were also many others which made a fine appearance, and some of an ordinary character.

THE SOCIETY'S DINNER.

At precisely one o'clock a procession was formed at the President's tent, consisting of the officers of the Society and invited guests, and proceeded to the committee rooms, where an excellent and substantial dinner was in waiting, provided by Mr. John Wright, caterer for the Society. This dinner is a most excellent feature of the Society's arrangements—one peculiar to itself, and one which evinces the liberality of its managers. Between two and three hundred gentlemen availed themselves of the Society's hospitality. The dining hall was ornamented with several beautiful paintings of cattle, landscape views, &c. After the dinner the list of committees was called, and as far as possible the vacancies were filled.

EXHIBITION OF PONIES.

The first exhibition after dinner was that of Ponies. A dozen or fifteen animals appeared under this head before the Judges—one half of which at least we should class as good sized horses. It may be a difficult point to decide just where the dividing line between a pony and a small horse lies—but in regard to one half of those on the track this afternoon the committee can certainly have no hesitation.—There was one, a little black fellow about as large as a good sized New Foundland dog, which seemed to be the favorite of the spectators. The company cheered him loudly, and in acknowledging the compliment he he put his heels higher than his head and landed his rider, a lad, flat on the track, while he himself retired into the green. He was caught and again mounted, but he was determined not to be ridden, and after dismounting his rider again he was lead off the track. A pair of beautiful bay ponies, attached to a light wagon, were driven by a young *two and a half years old*, a son of GENTRY TWITCHELL, Esq., the accomplished Super-

intendent of the Boston and Worcester Railroad. The young gentleman reined his steed finely and seemed to enjoy the sport very much.

TRIAL OF SPEED.

The exhibition closed with a trial of speed open to all horses that have never trotted for money; exhibitors to drive, and be persons who have never driven for money. Mile heats in harness, best three in five. The Judges were David Leavitt, of New York, Parson Stevens, of Boston, Lewis B. Brown, of New York, Anson Livingston, of New York, H. K. Libb of Bangor. First premium, \$200; second premium, \$100.

Nineteen horses were brought upon the track but upon its appearing that they were to start in classes of four each, immediately following each other, the parties drawing for a choice one of the horses was withdrawn. It was stated in the outset that no horse would be allowed to compete for a premium, who had been trotted for money. The quickest time around the track twice, was made by the horse John Smith, owned by John C. Smith, of New Bedford. This mode of trial not proving satisfactory, the next heats, which were for the best two out of three, were carried out by each class trotting separately. The result of this, narrowed the contest down to the Vermont Boy, belonging to Mr. Gilman, and the Lexington owned by David Benjamin. The time of the Vermont Boy was 2.40 and 2.36, but on account of some question relative to trotting heretofore on a wager, a decision upon the question of claim was postponed until an investigation took place.

A GLANCE AT THE STALLS AND PENS.

Among the choice horses it may be naturally supposed that there are many of the Morgan and Black Hawk breeds. The Morgan Hunter, 5 years old, belonging to S. D. Barlow, Brandon, Vt., and the Morgan Empire, 11 years, George W. Chamberlain, Waltham, each weigh 1100 pounds; Norman, 12 years, F. Whittaker, South Maiden, 1180 pounds; Morrill, Bulrush, Morgan and Messenger, 11 years, F. Merrill, Danville, Vt., 1200 pounds. Chester Lyon, by C. Lyon, imported, owned by William Ellis, Middlebury, Vt. 1400 pounds. A pair of matched horses, belonging to Dr. O. S. Saunders, Boston, weigh 2100 pounds; a pair owned by Ed-

1 Seavy, Boston, 2268, and a pair by N. B. Russell, Harrington & Co. have a pair of grey horses weighing 2740, and a pair of white horses weighing about 2600. These are among the heavy horses. To mention all which are possible would require far more space than we have to use at this time.

The cattle on exhibition occupy a large space in the enclosure, and comprise choice specimens of Durham, Devon, Hereford, Jersey, Ayrshire and native breeds. It would be difficult among many fine animals to single out any without doing injustice to others.

James, a fine-looking animal, belonging to Morris, of Westchester Co., N. Y., a Durham weighs 2025 pounds. Kirkleavington, three years, belonging to Paoli Lothrop, South Cay Falls, weighs 2190.

G. Giddings, Exeter, N. H., exhibits a pair of working oxen, native breed, weighing 1500 lbs. A pair of two year old Durham steers, of Haynes, Readfield Me., weigh 2000. Pitt and Hunt, Wolfboro', N. H., exhibit a pair of fat native cattle weighing 5000; W. S. At, Farmingdale, a seven year old ox weighing 3200, and James Eddy, Sarnsey Mass., a seven year old weighing 2750 pounds.

M. Drinkwater, of Chateaufort, Me., has a beautiful grade oxen, six years old, weighing 3000 pounds. A. G. Cole, Buckfield, Me., exhibits an excellent pair of Durham steers, three years old, weight 3150 lbs.; also a large pair of Durham oxen, six years old, weight 4000. B. French, Baintree, and Hon. Josiah Quimby, have some excellent oxen on the ground.

The sheep and swine also make a good appearance.

Of the first-rank there are the native English, Silesian, Spanish and French Merinos, and Down and middle-wooled, and of swine, very fine specimens of the Suffolk, Essex and Berkshire breeds.

SECOND DAY—WEDNESDAY.

The elements appeared to have entered into a combination to see how uncomfortable and weary a time they could make for the second day of the great exhibition. The storm which commenced on Tuesday evening, continued almost uninterruptedly through the night, and lasted through the entire day. The rain fell in torrents and at times the wind blew quite a smart

gale. Under these circumstances the entire programme for the day was postponed. During the day there were no visitors on the ground except exhibitors and gentlemen serving on committees—and they were clothed in big pea-jackets, stout boots and mittens. A few of the more adventurous committee men made their examinations; but the most of them postponed this duty until they could have more favorable weather. The owners of the animals on exhibition endeavored every way possible to shield their horses and cattle from the storm, but in spite of all their efforts, some of them had a most uncomfortable day. About noon many of the best horses were removed from the ground.

During the forenoon, the officers of the society and the committees met in the committee-rooms, where the vacancies on the committees were filled.

At one o'clock, the officers and their guests with the committees dined together. After dinner, Mr. Wilner, the President, briefly expressed his regrets at the unpropitious state of the weather, which rendered it necessary to postpone the programme for the day. But he urged all to keep up good courage, and said he, we will come out right yet. We are here, and we mean to have a good time and fair weather before we go through. This announcement was received with much applause.

Bond's Coronet Band which was engaged for the day was on the ground, and took up their quarters beneath the Marshal's tent, where at intervals during the day they discoursed excellent music to a select audience.

THIRD DAY—THURSDAY.

The third day of the Exhibition opened with favorable prognostics. A keen wind which blew from the west, dispersed the rain-clouds that lowered so dismally yesterday, and soon rendered the exhibition grounds dry and comfortable.

As soon as the gates were opened, a continued stream of visitors began to pour into the enclosure, and from present appearances there will be a vast multitude in attendance upon the exhibition to-day. At an early hour the number of people on the ground was estimated at over 10,000.

The programme assigned for the morning was deferred until after the entree of the grand Truckmen's Calveade. About 10 o'clock this

noble array began to deploy upon the ground ; and a most magnificent sight it was ! Dressed in neat white frocks and dark pantaloons, and mounted upon generally large and fine horses, the manly, stalwart frames of the drivers showed to the best advantage. We never witnessed a finer body of workmen, and the turnout fully maintained the ancient character of Boston truckmen. They mustered by actual turnout 617 strong, were marshaled in an efficient manner by Peter Dunbar, assisted by an active corps of assistants, and preceded by the Boston Brass Band. As they passed the circuit of the track, their unique uniforms blended grandly with the general appearance of the thousands of spectators lining the sides throughout its entire extent. After having twice accomplished the circuit they retired.

Judging from the crowds that are actually besieging the various entrances to the grounds, to-day's Exhibition must be pronounced most successful. At 12 o'clock, the ranges of seats provided by the Society, and capable of accommodating 6000 persons, were completely filled.

Around the large area of the race-track, the crowd was also immense. It is probable that more than 50,000 persons visited the exhibition this forenoon.

From the Plough, the Loom and the Anvil.

Country Houses.

MR. EDITOR :—One of the most common features in the houses of the country is the want of taste, visible in all sections of the country. These dwellings are mostly the homes of the farmer, and surprising it is to see how little time is spent in improving them and making them look as a farmer's home should. Most of them were placed close to the highway with a door-yard perhaps in front, of twelve by twenty feet, fenced off from each corner of the house and running to the street fence. Hence this yard comprised all the "grounds," the house had, and sometimes even this was wanting, as in many cases these houses were set directly on the street. At the present time a little more taste may be shown in the buildings or houses than formerly. But in the situation of the farmer's house and the ground around, very little, if any, improvements have taken place in the last forty years. For some reason or other, people living in the country have a fear that

they shall not see every-body that passes in the street, and so the houses must be built directly on the highway, to gratify this curiosity and of course all the dust and dirt of the street in a dry time must be endured for the sake of seeing the "natives" as they pass by. Now it is astonishing to see what parsimony many farmers with large farms, will exhibit in reference to an acre or two of ground for building a house. But ordinarily it is more owing to a want of a just appreciation of what a farmer's house should be, than from a real penuriousness. All this difference comes from education, an education which every farmer may have by a little care and study, but which they so often neglect, believing it more necessary to increase the number of acres than to make permanent and lasting improvements on what they now possess. Of course those farmers who occupy old farm-houses of a former generation cannot change the situation, though the back-ground may often be enlarged, and the whole premise can be changed when the right spirit is set to work. For instance, if the kitchen garden is close to the house, as is often the case, take up all the old board and picket-fence between the garden and the door-yards, also remove all the old rail fences near the house, and make one good substantial fence around the outside, making but one yard of the whole. The kitchen garden of course, will be removed to a place outside of the yard-fence, while the old garden can be used for fruit-trees, flowers, shrubs, &c.

The old cow-houses, hog-pens, &c., if they are pretty near the house, as they often are, should be removed if they can be, especially the hog-pen, or a high board-fence may be put up in front to cut off the view from the house.

Here we only give some ideas how an old fashioned farm-house may be improved by little labor and taste. And when the farmer once commences an improvement of this character, he will find that as he goes forward with his improvements, new ideas will constantly turn up which will show him the value of such embellishments. All that is wanted by the farmer is a little exertion on his part to go forward and enter into this business. Of course where new grounds are to be laid out, a different plan will be carried out. In this case, the farmer can select his own grounds and make

all the arrangements to his liking. An acre of land (two are better, and three or four better still) for a court-yard or "lawn," with the house standing on the highest point of land the out-buildings a little below this level and in the rear, a country place can be made to make a good appearance. Whatever is the size of the yard, allow no cross sections of fences, but have one good substantial outside fence of wood, wire or iron, as the case may be. Where the yard is composed of five or six acres, the kitchen and flower gardens may be placed in the rear of the buildings with suitable enclosures. It is also well to select the site for your house and out-buildings in or near a group of natural forest trees, for shade and protection, if they are at hand. Apple trees and cherry trees may be used for this purpose. Should neither of these be within reach, as will often be the case, when it will be time and money well-spent to transplant some large forest trees of six, eight, and ten inches in diameter at the trunk, to shelter your house and out-buildings from the sun's rays and storms. This may be done by the "frozen ball method," which we have often named before, which most northern cultivators understand. The plan is just before cold weather sets in, go to the forest and select your trees for removal, then dig about them, cutting off all the branching roots, leaving the main turf roots at the bottom uncut. In this way the tree must stand till the earth about the roots is frozen to a solid ball. In the mean time the holes for the reception of these trees must be dug, and all prepared before cold weather sets in. They should be dug some two feet larger than the ball of roots, and the space filled in with yard soil so as to give the rootlets a good start in the spring. If there is a slight snow on the ground the trees may be removed on an "ox-sled" or two drags fastened together. The trees must be raised from their bed by means of long levers, pulleys, etc., and placed on the sled. It will require a great number of hands and a strong team, according to the size of the trees to be moved. In most situations the trees will require bracing during the first winter they are set, to guard against winds and storms. When the work is well done they will continue to grow without much check the next season, and ordinarily none of the top need be cut off. Some cultivators have done well by removing large trees in the spring. It will be

seen that the peculiar advantage of this system of tree-planting is, that you have fine shade trees to begin with on a new place, instead of having to wait ten or fifteen years for small trees to grow up for shade. This is quite an item of economy in time.

In giving a description of what a farmer's country-house should be, we can only name the outlines, as the other points must be filled by the farmer himself. One thing we will name. Generally, now, where a farmer wishes to build a house, he just goes and consults the "builder," commonly a house-carpenter mechanic. Of course he finds out what the lowest "job" price for a house may be. Then if he concludes to build, the plan and "architecture" of the house is left to this "builder," to determine, which in most cases will be a mere "copy" after some dozens of others. Now the farmer should know something of style and architecture himself. Then he should consult the best works on that subject, and not depend on the house-carpenter for this service. The farmer will find that it will cost him no more to build his house in a tasteful style, than to build it in violation of all the laws of good taste and of the rules of architecture.—*L. DURAND, Derby, Ct., Sept., 1855.*

A SINGULAR PLANT.—The Baton Rouge Commet says that Mr. P. F. Stanton, of Livingston parish, Louisiana, has a very singular plant in his garden, which seems to be the connecting link between the animal and vegetable world. The plant is about three feet high, and its stem reaches the ground. At the end it is armed with a small sharp substance, with which it pierces insects and lifts them into the calyx, where they are grasped by the plant, and appropriated to its support.

Ploughing.—Sandy soils may be plowed early, and while wet; but clay soils should never be disturbed till they are dry enough to crumble, or pulverize when turned up. Clay soil, being malleable, and but slightly elastic, the compression, or packing, by the mould-board, will not swell out again; and one ploughing of clay land, when wet, will do it more harm than twenty good ploughings can afterwards remedy. It is on this principle, that an old road can never be made good soil.



The Carolina Cultivator.

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TERMS

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ADVERTISEMENTS.

A limited number will be inserted at the following rates: For each square of twelve lines, first insertion, ONE DOLLAR, each continuance, SEVENTY-FIVE CENTS.

Dignity of Labor.

The time has probably passed by when it was necessary to enlighten intelligent men the importance of industrious habits. There are however some of the spoiled children of fortune who imagine that personal labor is servile, and derogatory from the dignity which belongs to them. This false notion of respectability is not peculiar to the South, but owing to the character and relations of the different classes of the population in the slave States, adheres more permanently to certain families, and descends from one generation to another with more regularity than in any other part of the country.—This circumstance has given rise to the unjust misrepresentations prevalent in other States in regard to the hereditary characteristics of the Southern people; but an impartial investigation would satisfy the candid inquirer that this species of pride is peculiar to no part of the Union, but manifests itself wherever wealth is enjoyed by ignorant and indolent men.

But the false dignity to which we refer, wherever it may be found, is one of those social

evils which deserve universal rebuke. It exists in every community, and everywhere insults honest labor with its air of contempt. There are many persons who, taking every occasion to flatter the hard-fisted commonalty, as they consider them, as "the bone and sinew" of the nation, nevertheless betray the true measure of their regard for them by social neglect and unwarranted distinctions. This spirit must be met and conquered by the farmers and mechanics with a dignity of another kind. They must learn to illustrate in their own persons and character the true dignity of labor. This will ever depend upon the principles, manners, and accomplishments of those to whom it belongs.—Let it be seen and felt that he who can demean himself at his own board with the manly bearing of a cultivated gentleman, can also stoop to the humble labors of the farmer and the mechanic, and that miserable prejudice which prevails against labor will be mortified into silence. To his end those who are accustomed to toil, should carefully attend to the refinements of life, and prove to the world that the one is by no means incompatible with the other. In this way labor may be elevated to its proper dignity, and rendered attractive and delightful.

Prepare for Winter.

Some people are so philosophical as to imagine that it is as healthy as it is natural to be cold in the winter. So they take no pains to prepare their homes or their apparel for the season. They sit all day in an open house, with the north wind blowing upon their backs, sending its chill influence through the entire frame, and all from the idea that cold air is *wholesome*. This alone would be bad enough, but it is still worse when the poor beasts, which toil all the year for their benefit, are exposed with far more recklessness to the severity of the season.—Horses, cattle, and sheep are mercilessly exposed to the storms and blasts of the most inclement weather, and it seems to be taken for granted that it is all the better for them—it makes them so hardy! This is all wretched philosophy and worse economy. Unsheltered men and beasts alike require all the more food to preserve them in good condition under such circumstances. Prepare for winter! Read the following:

LOOK WELL TO THE FARM STOCK.—One of the most observable features among the live stock, in this season of abundance, is the ill condition in which they are prepared for the winter. The luxuriant growth of grass has been at the expense of its nutritious qualities, and everywhere we go, we find the cattle, and more particularly the sheep, in a lean and often sickly condition; and when we consider that very much of the hay and grain for next winter's use is a good deal damaged, we feel apprehensive that our farmers will suffer great loss among their animals, unless they bestir themselves in time. Farm stock now, is even worse prepared for the winter, than after the great drouth of last year. Sheep and calves should be looked to closely. Get them in good heart, and provide ample shelter and dry quarters against the storms to come on, or you will see such a display of sheep's pelts and kip skins upon the fences before next spring, as will tell badly upon the profits of the season.—*Ohio Cultivator.*

The Water Ram.

We have often wondered why so few avail themselves of the remarkable properties of the Water Ram, an instrument invented we believe by Montgolfier, of France, by which, water can be constantly raised to almost any height above its own level. This is one of the most beautiful pieces of mechanism in the world, the principle of which is simple in the extreme, whilst the power is such as to astonish the beholder. By its means the contents of a spring can be conveyed from the bottom to the top of a hill, propelled by its own motion, and thus contribute to the regular irrigation of land, as well as furnish pure water for all household purposes. We have seen the instrument in successful and beautiful operation.

JUDGE RUFFIN'S ADDRESS.—We present to our readers in the present number the admirable address of Judge Ruffin, delivered before the N. C. State Agricultural Society, at its late Annual Fair. Had it been possible, we would have published it sooner, but it is of such a character as to lose little by delay.

EXCHANGES.—We have on our table recent numbers of the following valuable literary periodicals: BLACKWOOD'S MAGAZINE, republished by Leonard Scott & Co., for the month of Nov., and the WESTMINSTER REVIEW, for October, are both as full as ever of choice reading on the most interesting topics of the day. GRAHAM'S MAGAZINE, GODEY'S LADY'S BOOK, and PETERSON'S MAGAZINE, the most interesting of the Philadelphia periodicals, are also before us, and the NATIONAL, a handsome and agreeable monthly from New York.

Vol. I.—No. 10.—B.

THE LITTLE PILGRIM.—This beautiful paper for boys and girls, commences a new volume with the new year. It is edited by GRACE GREENWOOD. We advise all our young friends to subscribe for it. It is published monthly at 50 cents a year for single copies; five copies for \$2; 14 copies, and one to get-up of club, for \$5; 24 copies, and one to get-up of club, for \$8; and 50 copies for \$15—*always payable in advance.* Address Leander K. Lippencott, 66 South Third Street, Philadelphia.

PENNSYLVANIA FARM JOURNAL.—This valuable Agricultural Journal enters upon a new volume on the first of January. The Editorial department will be under the control of David A. Wells, A. M., member of the Boston Society of Natural History, formerly Chemist to the Ohio State Board of Agriculture, Editor of the Annual of Scientific Discovery, Familiar Science, The Year Book of Agriculture, &c., and A. M. Spangler, the original editor and proprietor of the Journal.

PATENT OFFICE REPORTS.—We are indebted to Charles Ma-on, Esq., Commissioner of Patents, for several valuable volumes of Patent Office Reports, for which he will please accept our thanks.

For the Carolina Cultivator.

On the Accumulation, Preparation and Application of Stock-yard and Stable Manure.

The subject of manures—stercology, as it is called in modern science—has always been regarded as one of the greatest importance: and none more justly so; since it is by their use the careful Farmer is enabled to repair the losses his land sustains—to return some proportion of what it yields to his labor. By means of them the wilderness is made to "blossom as the rose," and barren deserts, once roamed over by beasts and savages, bear on their bosoms the habitations of civilized men, surrounded by waving harvests and flocks and herds, wandering at their ease in the green pastures of plenty.

A correct estimate of our subject must always be a great and essential characteristic of a good farmer and by observing the value he places on his manure and the care and pains he bestows on its collection and preservation, we shall be able not only to judge of the relative grade of the individual, but also to form a very shrewd guess of his present progress and ulti-

mate success. From ancient history, both Scriptural and profane, we learn how honorable was the standing of the farmer and the means he took to sustain his position. From Scripture we of modern days with all our boasted skill may yet learn many an important practical truth, which must be of force as long as Nature's laws remain. Our blessed Saviour in several of his parables explains and enforces the duties of husbandmen and stewards and all through the divine writings the earnest inquirer may find many a gem whose setting shows the hand of a master and sheds a ray of purest light serene over the most abstruse truths.—Many of the Greek and Roman poets and philosophers have left enduring monuments of their devotion to the cause of agriculture, in writings which even now are of great authority, in the science and which prove they not only knew the right way but they pursued it too even with their own hands. Virgil, Varro, Columella and Cato with Cicero, Horace and Cincinnatus and a host of illustrious men whose deeds have placed them high on the roll of fame were distinguished by their works in this field. The Greeks can boast of Hesiod and Xenophon, Aristotle and Theophrastus, and we cannot but confess that the good cause must have advanced in such hands and that the small beginnings made by Adam in Paradise must like a tender plant, gradually have increased so as by this time, to have given fruit and shade, profit and pleasure to the thousands who sought its widely extended branches. The agriculture of the ancient Chinese and Egyptians, like all their ancient history, is so enveloped in the mists of fable that nothing at all satisfactory can be obtained from any writings now existing. Among them of course, deriving their subsistence almost wholly from agriculture, the art stood very high, and as among the ancient Jews, so the Egyptians numbered Prophets, Priests, and Kings among its professors. The Emperor of China, the brother of the Sun, as he styles himself, is still accustomed to lay off the first furrow with his own hands, at the opening of spring, with a golden ploughshare. The ancient Peruvians held that the art was introduced into their land by a God who descended from Heaven, with his wife and dwelt among men. No one needs at this day any proofs to show the exalted position of agriculture in more modern times; but to overlook multitudes of

less interesting examples we only refer to the model farm of Prince Albert, at Windsor, where not only is science carried out to its ultimate and most beneficial results, but each theory is so treated by skilful hands under the immediate inspection of the Prince as to make it yield up its hidden secrets. Let us glance too at our Presidents, who after yielding up almost unlimited power, without a struggle into the hands which conferred it, like Cincinnatus peacefully retire to cultivate the earth, more pleased perhaps in observing what a different return our common mother makes for benefits conferred, from that most generally found among her ungrateful children.

A cursory glance at the writings of the ancients reveals to us that besides knowing the powers of various means they were also acquainted with the practices of fallowing, rotation, pruning and irrigation; all these several branches have been since carried to much higher success and produced much more importance results, but the Chinese, a nation almost proverbially opposed to all progress, is still ahead of the world in the minutiae of agriculture; in the collection, preparation and careful application of manure they are models worthy of the closest imitation; but until our broad and happy land shall seem as theirs we cannot have either the incentive or the means for exertion.

The best method of securing a large amount of manure is undoubtedly the practice of soiling cattle—a method practiced on the continent with much success. It is very certain that this plan furnishes the most abundant means of procuring great quantities of manure at a small expense and if pursued to any extent in this State would soon change the entire course of agriculture; reclaim vast tracts of barren waste, pour a constant current of wealth outwardly into the hands of our neighbors and inwardly into the pockets of our farmers. It consists in raising first large quantities of green crops, which, would by no means so much exhaust our lands as those of grain, and secondly in keeping flocks of sheep and herds of cattle to consume these crops and turn them into manure to be restored with no niggard hand to the earth which produced them and to pay the owner a largely increased profit by the wool, hides and carcasses. The cattle are kept constantly confined in pens of suitable size or pastured in different fields in succession. This plan, so cheap, so

effective, which saves the trouble of composts and guano, bone dust, irrigation and liquid manures and all the thousand projects and schemes for the transfer of money from the pockets of the producer, to those of the merchant and factor, after a few years of successful experiment would revolutionize our State. The enormous and yearly increasing expense of thousands of miles of rail-fences would be avoided, because instead of fences around whole plantations to keep the cattle out, all that is needed would be a slight wicket to keep them in at night, or a wire fence with a boy or two to confine them their appropriate pastures during the day. Instead of long files of lean, gaunt and hungry hogs, which flit across the vision and really leave the spectator in doubt whether they are not only spectral residents, condemned to wander over this mundane sphere for unheard of crimes committed in days long since forgotten, we should see *hogs* reposing in rich clover fields, alternating from one pasture to another, as they successively became fit for use; and ready at any time to offer up a carcase which at four months would out-weigh in sound, healthy flesh and pure lard a half a dozen of what we call hogs, which have been starved for two years and are then only fit for the knife at an expense of more corn, than the pastured hogs have consumed during their whole existence. Instead of yearly destroying timber enough to pay for a plantation, we would send our noble oaks, pines, chesnuts and cedars to float in triumph o'er old ocean's waves to climes now unknown, bearing the glory of our flag, where now the stars of Heaven rise and set in solitary majesty and the roar embattled elements alone, wakes the slumber of eternal silence. As proof of the efficacy of this system I need only refer to what is believed to be the only example of it practised in this country: cowpenning a lot for turnips, potatoes, &c., the success of this plan is abundantly demonstrated by the well-known fact. The benefits of yarding are very great; yet during summer the loss by evaporation and washing is also considerable. Some farmers turn in their cows and sheeps together, which answers very well when the soil contains much gravel or warm sand and is not positively bad when it consists mainly of loam. But it is regarded as more judicious to fold the cattle by them-

selves on a dry, hungry soil and the sheep alone on a stiff, heavy and cold one. It being now clearly demonstrated that in cheapness and effectiveness the system of combined soiling and manuring exceeds all others, it is with regret I hasten on to another point of this essay. I regret it because it is capable of the most perfect proof by facts which it would require volumes to contain that it is to this system of raising and applying large quantities of manure that we must eventually attribute the agricultural regeneration of North Carolina—we save in manures, in fences, in the number of our cattle and hogs and sheep, because if we keep fewer we must feed them better and make up in quality what we lack in quantity—a few well fed hogs would be worth more than treble the number of landpikes we have now; we should prevent the ravages they now so extensively commit, the wounds and bruises they constantly receive, the loss by starvation, accident and theft; we should gain much in having a larger, handsomer, and healthier breed and by all the circumstances which distinguish the herds of half-wild, half-fed and wholly neglected animals which now wander so disconsolately over our broom fields, and that cluster of profits and beauties, which mark a similar number, born and bred under the owner's eye, tilling milk-pails and dairies and purses by their superabundant yield, affording the most pleasant aliment during life, the most nutritious after death, and last, but not least, lending a charm and a beauty to the landscape that in every age has delighted the gaze of the poet and philosopher.

It is the common practice to pen up cattle and other stock at night fall; this should be rigorously persevered in, and in addition all leisure moments and all spare hands should be employed in collecting the raw materials, which the stock may convert into manure; pine-straw and that of wheat, peas, oats, rye, &c., the stalks and shucks of Indian corn should be abundantly spread over the yard, and after being fully saturated and impregnated with the virtues of the manure should be heaped and composted under shelter or otherwise secured from the influences of the sun and rain—and a fresh supply laid down. It is astonishing how many substances an enterprising farmer can find placed just in his way, which a little care would enable him to convert into almost an

equal amount of valuable manure. Bran, corn cobs, weeds, saw-dust, charcoal, leaves, trash of all sorts may thus be advantageously used; in fact any vegetable or animal substance, containing as they do the elements of the crop or the food which produced them, can thus be made to restore their locked up treasures to future similar crops. For chemical investigation the most minute abundantly shows that each crop and every animal derives certain peculiar substances from the earth and if one single crop be successively taken from the fields the peculiar elements necessary for that crop will be exhausted and it will cease to flourish, while another may succeed admirably. Thus wheat requires silica and potash, the one giving strength to the straw, the other greenness and general health; a succession of wheat crops therefore exhausts these two elements and unless they are returned in some shape or other the straw becomes weak and short, the blade pale and sickly, and the crop fails. Thus too on pasture lands—cattle require large amounts of phosphate of lime to form their bones—it is also present in a considerable proportion in milk—10 galls. containing 1-2 lb. of this salt—and unless it be returned in ground bones or some similar substance the grass crops fail. Every crop then requires its own particular food, whose chemical constituents are found in its leaves and seeds; we must therefore return to the earth what we take from it, and as this cannot be done by ploughing in the crop itself, except in unimportant cases as clover, peas, buck-wheat, &c., we must do so by carrying on it the crops after they have served us by feeding our stock and are prepared for the use of future crops by undergoing a new process and acquiring other properties by passing through the bodies of our stock. Food in its passage through this animal laboratory becomes mixed with animalized matter, and is in consequence, richer and more valuable weight for weight as manure, than the dung procured by littering cattle: although it must necessarily be much less in bulk or quantity from the large proportion of the digesting food, which goes off by breathing and insensible perspiration; besides which it is extremely difficult to prevent the urine and the valuable juices from sinking through the floors of stables or the soil of farm yards. Could these inconveniences be effectually provided against

by a proper flooring of chalk, clay or gypsum, a much larger quantity and a better quality of manure would readily be secured. Chemistry has discovered numerous composts formed of certain specific materials and adapted to each particular crop and while in many instances under the highest state of agriculture, and after perfect preparation of the soil many of them have been found profitable, still as a general rule stable and farm-yard manure will be found the cheapest, most universally effective and most easily applied, under the present state of things in N. C.

The proper location of the stock yard is by no means a matter of small importance. It should not be placed on a hill side, so as to be subject to constant washings from every rain that falls, though it is of considerable advantage that it should be on the highest ground, as then all the heaviest loads would descend on their way to the fields. A good plan is to have the bottom made dishing and after being cleared of stones, &c., rammed very hard to prevent the rich fluids from escaping downwards. Some farmers are so improvident as to place their stables on the side of a brook, as this affords the easiest means of removing the rich surplus of their manure which is washed into it by every rain or escapes down the road side, marking its oozy bed by a black deposit which the suffering fields on either hand are dying to obtain; or as an old farmer used to say "there were just so many dollars rolling away down hill—catch them—catch them. Some authors have recommended very expensive and extensive preparations of shallow wells to receive the liquids, fitted with pipes and pumps; but though there is but little question that these arrangements would pay very well under certain circumstances it is not at all probable they would suit the present condition and future prospects of our farmers; there are many, many things which science has years since decided and which necessity loudly calls for but which we may long despair of finding suitable for us and "these are of them." Our present duty is as far possible to examine all the plans proposed, deduce their principles and apply them, if suitable, without confining ourselves too closely to any set of opinions or tying ourselves too firmly to the dicta of any professor. Years and years from this time when this society shall number as members, every farmer in the

State, and every citizen shall contribute his mite to the good cause we shall advance as a determined band conquering every prejudice over coming every obstacle and then we too can have our liquid manure tanks, our pipes and pumps, with engines and hose which look so pretty on paper and cost so high on the ground.

There is one plan though which we cannot help recommending as simple, cheap and efficacious and that is stable cellars: some hill side might be taken advantage of so as to allow a small space between the floor of the stable and the ground, then the floor being grated and well littered, larger spaces being left at convenient distances, the liquids would filter through on the substances prepared below and the solids being occasionally added the whole mass could easily be kept in a coal, dark corner out of reach of sun and rain. All the materials necessary for converting this into compost being here heaped together and mixed at proper intervals might be shoveled into wagons standing on a level with the door. These cellars are sometimes used as hog-pens but on the score of cleanliness and in consideration for those who eat them, this plan is liable to serious objection; they certainly would stir the mass very effectually in their search for any stray grains of corn, but very little labor is requisite to do this systematically. Learned physicians trace many of our diseases to our eating the flesh of unhealthy swine and it is certainly much better that when penned, they should be fed on clean and healthy food. When the floors are of close plank they should incline to the rear of the cattle and be bounded by a gutter of greater or less depth whose contents should be emptied and secured as occasion requires.

Farm-yard manure is generally made up of the solid and liquid excrements of animals, with straw or hay, some in a state of decomposition and the remainder fresh and unchanged. There exists a great difference of opinion as to the propriety and advantage of using long or fresh manure or that which is completely rotted: these difficulties are capable of adjustment. If the intention be only to benefit the immediately succeeding crop the manure should be completely rotted; but long manure if immediately plowed in and covered is more beneficial to future crops; long manure is preferable for potatoes as rotten manure always makes them watery and worm eaten. If the object be to

furnish the greatest amount of organic matter to the soil, the sooner the application is made the better; on compact clays the mixture of straw and coarse manure is beneficial, rendering them looser and lighter; while the products of decomposition are more completely retained than they would be in a looser soil. Coarse manure makes loose soils looser and it loses more of its elements in decomposing; for this reason, compact fermented manures are preferable in such soils. For the use of crops which grow rapidly and mature in a short time well fermented manures and fine composts are more immediately felt; such crops as turnips, buckwheat, clover and many garden vegetables might nearly mature before decomposition would be sufficiently advanced in new and coarse manures to do them any benefit. When it is desirable to force or quicken a crop a well fermented or fine heating manure should be used, as rich compost, bone dust or manure of the horse and sheep. The straw of wheat, oats, &c., contains a mixture of saline substances, which is exceedingly valuable as manure to almost every kind of crop, the same may be said of their chaff. It is more economical generally to rot the straw and chaff in the barn-yard, instead of dissipating all their volatile matter in the air. When buried in a dry state they decompose slowly and produce a less sensible effect in the succeeding crop. During fermentation an unavoidable loss of organic and of saline matter takes place; it is therefore theoretically true of dry as well as of green vegetable matter that it will add most to the soil if plowed in previous to fermentation. Yet this is not the only consideration for the practical man; instead of a slow and prolonged action on his crops he may require an immediate and powerful one, for a shorter time and to obtain this he may be justified in fermenting his straw with the certainty of an unavoidable loss: thus the dispute about the application of long or short manure becomes altogether one of expediency and practical economy. Chaff partakes of the nature of straw, but it decomposes more slowly when buried dry. It is also difficult to ferment it even when mixed with liquid manure. The main general difference between vegetable manures, of the same kind and cut at the same age and applied in a green or dry state is this: that in the former it decomposes more rapidly and therefore acts more speedily;

the total effect in either case will probably be very nearly the same. But if the vegetable matter had been cut at a more advanced stage or been more exposed to the weather, while drying it will no longer exhibit the same efficacy. A ton of dry straw cut green will manure more richly than a ton of the same cut ripe, not only because the green plant contains the materials from which the substance of the grain is afterwards formed but because as the plant ripened it restored to the earth a portion of the saline and alkaline matters it originally extracted. After it is cut also every shower that falls on it washes out a portion of the salts which are lodged in its pores. See *Scientific Agriculture*—Rodgers.

All those troublesome pests, the gay robbers of our fields, hiding like bandits among the thickest growth and only exhibiting their gaudy colors when the work of destruction has been fully accomplished should be collected in the season of their greatest vigor and laid in the pigsty or barn-yard to give up their stolen treasures, to putrify and ferment with the matters therein contained—they are rich in fertilizing salts and whenever and however applied are valuable as manure. It surpasses the power of calculation to estimate the amount of damage done to our crops by weeds and the consequent advantages we should gain by destroying them in their period of bloom; almost every species produces millions of seeds which are wafted on the wings of the wind to far distant spots; they shade and occupy the soil and by their superior vigor drain out the sustenance prepared for more delicate plants and at last smother them to death. "Ill weeds grow apace" is an old adage and a true one and with this in his mind it is difficult to conceive how a farmer can gaze contentedly on acres covered with the vilest products of earth knowing how futile his labor must be when they occupy his land and starve his crops. A little labor would so soon change them into the means of increasing his gains and the unsightly fields would blossom with waving harvests of golden grain.

The remains of plants with the excrements and carcasses of animals if returned to the earth before decomposition, must contain all the mineral organic and gaseous matters which the plants derived from the atmosphere or the soil. These solid matters

must all pass through the process of decomposition before they assume their original gaseous and earthy forms and become fit food for plants. The whole science of manuring consists in supplying to the soil those indispensable elements which have been taken up by the growing crops; the richest manure may be applied to a failing soil and if it lacks the particular elements which the crop requires and which the soil does not contain still the fields grow barren. Farm yard manure probably contains the greatest number of elements necessary to fertility but for their full development particular plants require special manures. "Manures operate beneficially on soils in various ways. 1st. By serving in some instances as food for plants. 2d. By causing chemical changes in the soil by which other substances are prepared to be taken up as food. 3d. By neutralizing noxious substances in the soil which prevent the growth of vegetation. 4th. By their bulk and texture they change the mechanical properties of soils."—Rodgers.

In the management of farm-yard manure, three things are essential, viz: The promotion of putrefaction, in order to convert the nitrogen into ammonia, the prevention of the volatile parts from escaping into the air, and the washing away of the fertilizing salts by rains; as our barn yards are commonly constructed we have exactly the conditions necessary for the loss of the most valuable constituents, exposed freely to the air, which facilitates the volatilization of the ammonia as soon as formed; every rain that falls on it washes out the soluble salts and the remains of the ammonia. In order to promote decomposition the barn yard should be comparatively dry, and the manure laid together as thick as possible. Decomposition however, cannot be hastened without water, but the quantity that is unavoidably mixed with it by rains, and the natural moisture of the manure is sufficient for that purpose. Too much water prevents that fermentation which causes decomposition most quickly. If any part be saturated with water it will be observed that the straw and other fibrous matter, for a long time after the other parts are rotten, will remain quite sound. To promote putrefaction the dung should be laid thick together, by which means heat is sooner generated, the natural moisture preserved and the manure is not burned. An excellent way to prevent the volatile parts from

being exhaled by the sun or carried off by the wind, is to cover the heap with a layer of clay or swamp muck, with a small quantity of gypsum or powdered charcoal, which will fix the ammonia, and thus prevent its escape. When thus covered, fermentation will proceed more slowly and uniformly, and consequently the ammonia will be gradually evolved and retained.

Liebig in his very able work on Organic Chemistry, has shown that ammonia is a very important ingredient in the nourishment of all agricultural products. During the decomposition of manure a large quantity of ammonia is formed, but being a gaseous substance, the whole passes off and is entirely lost. If therefore long manure is exposed in heaps to heat and moisture, fermentation ensues, ammonia is formed which passes off in the form of gas, and nothing is left but a mere carbonaceous residue of decayed plants. An idea of the loss sustained by manure exposed to heat and moisture may be formed from the fact stated by this distinguished chemist that, with every pound of ammonia which escapes a loss of 60 lbs. of wheat is sustained; to prevent this loss he recommends that the stable floor be strewn with gypsum, (sulphate of lime,) the ammonia enters into combination with the sulphuric acid, and the carbonic acid with the lime, forming compounds which are not volatile, and are consequently destitute of smell. Growing plants receive large supplies of oxygen and hydrogen, the component parts of water, from the rains and dews; they are also abundantly supplied with carbon in the form of carbonic acid by the absorbing power of their leaves; but a full supply of nitrogen and alkalies, is also essential to their vigorous growth; these are more sparingly supplied from the atmosphere, and hence the importance of additional assistance.

Putrescent manures abound in nitrogen, but this important element of vegetable food during putrefaction, nearly all escapes in the form of ammonia, and should be retained by an application of gypsum to stable manure before fermentation commences. A similar process in relation to manure, saved in feeding pens, cow yards, &c., would no doubt have a most beneficial effect. but it must be remembered that ammonia is readily absorbed by water, and consequently large portions are lost when exposed to be saturated with that fluid. Every precaution should be used consistent with economy to pre-

vent this: placing the manure under sheds and mingling with it a small proportion of gypsum as before recommended, would be the most effectual means to guard against this, but this is expensive. The next best method is to place the manure preparatory to its undergoing fermentation, so as not to subject it to the drainage of the adjacent yards or drippings from the sheds; this can be done by a judicious selection of the feeding grounds, and by cutting ditches to carry off the superfluous moisture, and by gutters which might be so connected with troughs as to carry all the drainage to a sink where it may be absorbed by soil, charcoal, &c., or used as liquid manure, having been mixed in proper proportions with urine. In this form it is highly advantageous.

(To be continued.)

Miscellaneous.

Winter Care of Fruit Trees.

Yesterday we crossed an orchard, by chance, the owner of which was already preparing his trees to endure the frosts of winter—as he supposed. But according to our experience, as well as theory, he was taking the most direct method of giving them the least possible chance of “living through.” As he was but a beginner, we could the more readily excuse him for following what at first thought might seem to be a feasible plan. “Somebody” had told him that the frost would have less effect upon the roots if they were kept imbedded in water through the winter, and he was heaping up and packing solid a circular bank of earth four or five feet distant from the body of each tree, so as to hold a pool of water even with the surface of the ground. Nothing could be more unphilosophical, as a little reflection will show.

Every healthy, vigorous tree or plant, is supplied with an almost infinite number of fibrous roots, which penetrate every part of the soil, and gather sap, and along with it a supply of organic, and, perhaps, of inorganic food. The expansion and contraction of the soil during winter, tear and break great numbers of these minute roots, a majority of which are so small as to be imperceptible to the unaided eye. Where there is a great number of alternatives

heat and cold, so many of these roots are broken as to leave the tree in a sickly condition in the spring, and it should be careful study to protect them from such action of the frost.—Should there be but a slight degree of frost, not more than enough to freeze water half an inch to an inch in depth, a body of water around the roots would doubtless act as a preserver, and from this fact probably arose the practice above alluded to. But in this climate we have to guard against foot-deep instead of inch-deep frosts.

A simple experiment will show the difference between a dry and a wet soil around the base of a tree. Take three cups, each nine inches deep; fill each of them within one inch of the top—the first with water, the second with earth saturated with water, and the third with moist but nearly dry earth—and subject all three to cold enough to freeze them solid. In the first, the water in changing to ice will expand so as to fill up the entire measure. The moist earth in the second will have expanded nearly as much, while the comparatively dry earth will scarcely expand an eighth of an inch.

The experiment, or the principle which it illustrates, viz: that water in freezing expands about one-eighth of its bulk, while dry solids do not thus expand, has a direct bearing upon the winter treatment of trees. Instead of retaining water around them, it is better to dig a ditch (at a sufficient distance to avoid cutting the roots,) to convey the water away and leave the soil dry.

A PRIZE RAM.—The ram that was awarded the highest prize 450 francs—at the World's Exhibition at Paris, arrived at New York, from Havre, a few days since, brought over for Mr. John D. Patterson, of Westfield, Chautauque county, New York.

CASHMERE KIDS.—Dr. J. B. Davis, of South Carolina, has recently sold fifteen three-quarter bred Cashmere kids, seven months old, and one pure breed two years old Cashmere buck to a gentleman in Tennessee, for \$4,000—the ewes at \$200 each, and the buck at \$1,000.

A German writer, Børne, compares the different stages in the lives of women to milk, butter and cheese. "A girl," he says, is like milk, a woman like butter, and an old woman like cheese—all three may be excellent in their kind."

The Art of Painting.

The following recipes, prepared by a practical painter, have been sold for a dollar. We give them to our readers taken from the *Due West Telescope*.

1. *To Boil Oil.*—In boiling oil, never fill your kettle more than two-thirds, or it may run over and take fire. Place your kettle on the coals, simmer your oil till it will scorch a feather, when it will be fit for use.

2. *To Grind Paint.*—Put your paint on a large flat stone, with a smooth face, wet your paint with oil, and grind until fine; be careful to grind fine, or there will be a waste of the paint, and your work will not look well.

A Mixture for Drying Paint.—Take 3 ounces of red lead, 8 ounces of litharge, 4 ounces of umber; make fine, put them into a gallon of oil; simmer together one hour, then strain, pour in one pint of spirits of turpentine. Add one gill to one quart of paint to make it dry fast.

Painting on Wood.—In any kind of painting, your paint must be of the proper consistency, your wood clean and smooth, and you must have a proper brush, or you cannot do good work. It is as necessary that a painter have good tools as any other mechanic, to enable him to make a good job. I have seen houses and other things spoiled with poor brushes.

5. *To Paint a house White.*—Mix 4 quarts of linseed oil with one keg of white lead thoroughly. Commence at the top and paint six or eight boards at one through, using great care to lay the paint even and smooth. In putting on three coats, make the second the thickest; adding a little Prussian blue to the last coat to make the white more clear. Be careful not to use too much blue; and you must putty all the holes and cracks before the last coat is applied.

6. *Cream Color.*—Add finely ground chrome yellow to white paint, (see No. 5,) a little at a time till the shade pleases you. You must add yellow to every coat to have a good finish.

7. *Lead Color.*—Add finely ground lamp-black to white paint, (No. 5,) till the color suits you.

8. *Blue Paint.*—Prepare a sufficient quantity of white paint, then add finely ground Prussian blue in oil. Add a little at a time, until the color is light or dark as you may want the shade.

9. *Black*.—In preparing black paint, grind lamp black in oil; and as black dries slowly, you should add two ounces of litharge, to every pint of paint. Always use boiled oil for black, to give it a body.

10. *Verdigris Green*.—Wrap verdigris in cabbage or other large leaves, and place it on the hearth, over which scatter cold ashes, then cover with coals, let it roast one hour, remove, and when cold, grind in oil. This is not so apt to fade as other green, and is used for outside work.

11. *Common Green*.—This is composed of nearly equal quantities of Prussian blue and chrome yellow. It must be ground very fine in oil. The shade may be varied with white lead.

12. *Another Green*.—You may purchase patent green ready for grinding, which is beautiful if genuine; to be ground as other paint.

13. *Stone Color*.—Burn umber on an iron plate until it is of a reddish cast. No color looks better for a room if well put on.

14. *Stone Color of a beautiful Green Shade*.—Add to white paint, sufficient to make a light drab; then green enough to make a green shade.

15. *Orange Color*.—Combine white lead with chrome yellow in the proper proportion to make a bright straw color, then add red lead to tinge it to an orange.

16. *Straw Color*.—Number 15 makes a straw color by leaving out the red lead.

17. *Dark Stone Color*.—Add umber to light lead color, (see No. 7,) till the color suits.

18. *Blossom Color*.—To white paint add red or Venetian red, till the color please. Red lead is the best.

19. *Flesh Color*.—To white paint add chrome yellow enough to change its shade, then some red lead, and a very small quantity of black. till the color suits.

20. *Best Copal Varnish*.—Reduce two lbs. of gum copal to fine powder and pour it into a copper kettle that will hold 3 or 4 gallons, and melt it over a fire of charcoal. When the gum is dissolved, add one pint and a half of hot flaxseed oil, having removed the gum from off the fire, stirring smartly while adding the oil. When it is partly cool, add slowly 3 quarts of spirits turpentine, still stirring. Care must be

taken that the contents of the kettle are not too hot nor too cool while adding the turpentine; if too hot it will take fire; if too cool it will not mix well. Strain whilst warm.

21. *Carriage Varnish*.—Manage your copal as directed in No. 20. Use 5 pints of hot oil that will scorch a feather, add 1 quart of turpentine, and proceed as in No. 20. This varnish will not crack.

22. *Gum Shellac Varnish*.—Put two pounds Shellac gum into 2 quarts of spirits of wine and shake occasionally; and when it is dissolved it will be fit for use. This will not stand exposure; it will dry in a few minutes, and answers well for coffins.

23. *Varnish to render Paper Transparent*.—Heat two gills of spirits of turpentine in an earthen vessel; when hot add 2 oz. rosin, and stir until dissolved. Varnish both sides of your paper with one coat, and when dry, it will be clear enough to read through. Lay this paper on a picture and mark the outlines, then cut it out, paint through the hole. In this manner you may paint any figure you may desire.

The Apricot.

The apricot is one of the most beautiful of stone-fruit trees, early known by its glossy, heart-shaped foliage, large with blossoms, and smooth skinned, golden, or ruddy fruit. In the fruit garden it is a highly attractive object in early spring, as its charming flowers are the first to expand. It forms a fine spreading tree of about twenty feet in height, and is early enough to bear, as an open standard, south of the forty-second degree of latitude of this country.

USES.—A very handsome and delicious dessert fruit, inferior only to the peach, ripening about mid-summer, after cherries and before plums, at a season when it is peculiarly acceptable. For preserving in sugar or brandy, for jellies, or pastries, it is highly esteemed, and where it is abundant, an admirable liquor is made from the fruit; and it is also dried for winter use.

CULTIVATION.—This tree is almost always budded on the plum stalk, (on which in July it takes readily,) as it is found more hardy and durable than upon its own root. Many American nurserymen bud the apricot on the peach, but the trees so produced are of a very inferior

quality—short lived, more liable to disease, and the fruit of a second rate flavor. Budded on the plum they are well adapted to strong soils, in which they always hold their fruit better than in light, sandy soils.

Apricots generally grow very thriftily, and soon make fine heads, and produce an abundance of blossoms and young fruit; but the crop of the latter frequently falls off when half grown, from being stung by the plum weevil or curculio, to which the smooth skin of this fruit seems highly attractive. Seedling apricots are usually more hardy and productive here, than the finer grafted sorts. This is a favorite tree for training on walls or espaliers, and, in town gardens especially; we often see it trained against the sides of a brick house, and yielding most abundantly. As the apricot, however, expands its blossoms very early, it should not be placed on an east wall, or in a situation where it is too much exposed to the full morning.—*N. E. Farmer.*

Curing Bacon without Smoke.

“Oh the trouble folks have taken
To smoke and spoil their bacon.”

To smoke the best bacon, fat your hogs early and fat them well. By fattening early you make a great saving in food, and well fattened pork. Then kill as early as the weather will allow, and salt as soon as the animal heat is gone, with a plenty of the purest salt, and about halfan ounce of saltpetre to one hundred pounds of pork.

As soon as the meat is salted to your taste, which will generally be in about five weeks, take it out, and if any of it has been covered with brine, let it drain a little. Then take black pepper, finely ground, and dust on the hock end as much as will stick, then hang it up in a good, clean, dry, airy place. If all this is done as it should be, (it ought to be done now,) you will have no further trouble with it, for by fly time in spring, your bacon is so well cured on the outside, that flies or bugs will not disturb it.

Curing bacon is like the Irishman's mode of making punch. He said:—“put in the sugar, then fill it up with whiskey, and every drop of water you put in after that spoils the punch.” Just so with curing bacon, after following the directions given above, every “drop” of smoke

you put about it, spoils the bacon.—*Portage Democrat.*

Ox Shoeing.

We frequently find in agricultural papers some remarks about shoeing horses, but I have never seen any thing therein about shoeing oxen. Now, it is true that a horse should be shod in such a manner as to cause him to stand and travel with ease, and the ox should be shod with equal care, but we frequently find oxen, especially large oxen, lamed by shoeing. Now, I find one great error to be in the length and shape of the shoes. If the shoes are long and crooked, they, of course, cause the weight of the ox to bear on the inner edge of the shoe, or centre of the foot, causing the hoofs to cant in an unnatural position. This may do for small, light cattle, but with heavy oxen it is quite different.

In shoeing large oxen there should be one inch of the toe, or forward end of the hoof, left bare, and be sure that the shoe sets flush with the outside of the hoof. Then the heel of the shoe should not be crooked or turned in too much; but our blacksmiths are apt to be in too great a hurry, and if a shoe comes within hailing distance of a good fit they must nail it on, in preference to selecting a better.

I am not a blacksmith, but I have always been acquainted with oxen, having teamed for forty years, and of course had many cattle shod. If the above remarks are not correct, should like to be set right. G. B.

Dresden, Oct. 8, 1855.

THE BRITISH WHEAT CROP.—A recent estimate of the British wheat crop, published by Mr. John Caird, in the London papers, has attracted attention on the other side, from the fact that it reduces the deficit, as compared with 1854, to one-tenth, and the growth of last year being unusually heavy, the writer assumes that 2,812,505 quarters, or 22,500,000 bushels will supply the deficiency in the annual consumption of the United Kingdom, which, he says, “is little more than one-half the average annual importation of the last five years.” His figures for the crop of 1855 are 15,187,500 quarters; the wants of the Kingdom, 18,000 quarters.

Winter has set in, and let each neighbor remember that fuel is an essential item for the poor and needy.

GEORGIA MARBLE.—Two specimens of marble—one of beautiful white color, almost translucent, of a very fine grain, and susceptible of very high polish; the other variegated, and exceedingly beautiful—have been discovered in Cassville, Georgia.

THE WORLD'S FAIR OF ALL NATIONS. Among the noticeable things on exhibition at the Crystal Palace, we saw the contribution of *New Pills*, from the laboratory of Dr. J. C. AYER, the author of the widely known and valued *CHERRY PECTORAL*. As it is against the express regulations of the Palace, to admit any quack medicines, this fact shows that his remedies are not placed in the category by the authorities. Indeed, we have before known that his Pectoral was highly appreciated by scientific men, and have seen lately that his Pills are held in great estimation by those deeply learned in the healing art.—*True Reformer, Mass*

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WORMS! WORMS!

A great many learned treatises have been written, explaining the origin of, and classifying the worms generated in the human system. Scarcely any topic of medical science has elicited more acute observation and profound research; and yet physicians are very much divided in opinion on the subject. It must be admitted, however, that, after all, a mode of expelling these worms, and purifying the body from their presence, is of more value than the wisest disquisitions as to the origin. The expelling agent has at length been found—Dr. M'Lane's Vermifuge is the much sought after specific, and has already superseded all other worm medicines, its efficacy being universally acknowledged by medical practitioners.

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DISEASES OF THE LIVER.

When the celebrated Dr. Rush declared that drunkenness was a disease, he enunciated a truth which the experience and observation of medical men is every day confirming. The many apparently insane excesses of those who indulge in the use of spirituous liquors, may be thus accounted for. The true cause of conduct, which is taken for infatuation, is very frequently a diseased state of the Liver. No organ in the human system, when deranged, produces a more frightful catalogue of diseases. And if, instead of applying remedies to the manifestations of disease, as is too often the case, physicians would prescribe with a view to the original cause, fewer deaths would result from diseases induced by a deranged state of the Liver. Three-fourths of the diseases enumerated under the head of Consumption, have their seat in a diseased Liver. (See Dr. Gunn's great works.)

Purchasers will be careful to ask for **Dr. M'Lane's Celebrated Liver Pills**, manufactured by **Fleming Bros. of Pittsburgh, Pa.** There are other Pills purporting to be the Liver Pills, now before the public. Dr. M'Lane's genuine Liver Pills, also his celebrated Vermifuge, can now be had at all respectable drug stores. **None genuine without the signature of FLEMING BROS.**

Table of Contents.

Address of Hon. Thomas Ruffin.....	305
A Singular Plant.....	319
A Prize Ram.....	323
Country Houses.....	318
Cashmere Kids.....	323
Curing Bacon without Smoke.....	330
Dignity of Labor, (Editorial).....	320
Exchanges, (Editorial).....	321
Georgia Marble.....	321
Judge Ruffin's Address, (Editorial).....	321
Medical Notices.....	321
On the Accumulation, Preparation and Application of stock yard and Stable Manure.....	321
Ox Shoeing.....	320
Pennsylvania Farm Journal, (Editorial).....	321
Patent Office Reports, (Editorial).....	321
Ploughing.....	319
Prepare for Winter, (Editorial).....	320
Third Exhibition of the U. S. Ag. Society.....	314
The Water Ram, (Editorial).....	321
The Art of Painting.....	323
The Apriect.....	329
The British Wheat Crop.....	320
The Little Pilgrim, (Editorial).....	321
Winter Care of Fruit Trees.....	327

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December, 1855.

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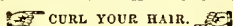
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
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FELLOW of the Royal College of Physicians, and for years Senior Physician in the London Royal Infirmary for Diseases of the Lungs.

In this age of progress, medical science has contributed her full share to the general welfare, and that which shines resplendent, the brightest jewel in her diadem, is her last and greatest gift,

Medicated Vapor Inhalation,

In the treatment of Consumption and kindred affections. The most absurd notions, narrow-minded prejudice contemptible ignorance, and unblushing quackery, have long existed in the treatment of Consumption. Men of skill and reputation as physicians have prescribed nauseous compounds to be taken into the stomach, to cure disease of the lungs, while the brazen-faced quack held up his nostrum as the only star of hope for the consumptive—if only enough of it were swallowed. The stomach, where no disease exists, being the receptacle of all this, is soon rendered unfit to perform its functions, and the health thus materially injured. All must see the absurdity, the positive injury of such a course; the disease is in the lungs, not in the stomach; then why, in the name of common sense, do you not apply medicine directly to the lungs? The advantage of Inhalation in Consumption and Throat Diseases is, that medicines in the form of Vapor are applied directly to the lungs where the disease exists; the stomach is thus left free to aid in restoring health, by administering to it healthy, life-giving food. There is no case so hopeless that Inhalation will not reach! The means, too, are brought within the reach of all, the manner of administering the Vapors being so simple, that the invalid is never required to leave home, where the hand of friendship and affection tends so much to aid the physician's efforts.

The Inhaling method is soothing, safe and speedy, and consists in the administration of medicines in such a manner that they are conveyed into the lungs in the form of vapor, and produce their action at the seat of the disease. Its practical success is destined to revolutionize the opinions of the medical world, and establish the entire curability of Consumption.

I earnestly appeal to the common sense of all afflicted with lung diseases, to embrace at once the advantages of Inhalation, and no longer apply medicine to the unoffending stomach. I claim for inhalation a place amongst the priceless gifts that nature and art hath given us, that "our days may be long in the land," and as the only

Art of Refuge for the Consumptive.

A method not only rational, but simple, safe and efficacious.

To many of my professional brethren throughout the Union I tender my acknowledgements for their frank and manly course in testifying to the merits of Inhalation. I shall be pleased to co-operate with them in offering to the afflicted the blessings of Medicated Vapor Inhalation in the treatment of Consumption.

One word for myself, in answer to those claiming to have introduced the practice, and to the tribe of imitators who, with brazen impudence, claim it as their own. I both wrote in favor of Inhalation and practised it 15 years ago! The apparatus then used, with the medical agents employed, achieved only a partial success: I therefore did not claim for it those miraculous powers which a long practice has since enabled me to give to it. Proof of this may be found in my work published in 1840.

Applicants will please state if they have ever bled from the lungs, if they have lost flesh, have a cough, night sweats and fever turns, what and how much they expectorate, what the condition of the stomach and bowels. The necessary medicines, apparatus, &c., will be forwarded to any part.

TERMS.—Five dollars consultation fee. Balance of fee payable when patients report themselves convalescent.

Recommendations by Physicians.

We, the undersigned practitioners in medicine, cheerfully and heartily recommend Dr. Rose's method of treating diseases of the Lungs and Throat, as the best and most effectual ever introduced into medical practice. Our convictions are based upon having several of our own patients, confirmed consumptives, restored to vigorous health, after a few months treatment by Dr. Rose. In the above named diseases the application of Medicated Vapors, inhaled directly into the lungs, may be justly considered a great boon to suffering humanity, rendering Consumption a perfectly curable disease!

Dr. Rose deserves well of the profession for his unremitting labors in bringing the Inhaling method to such a degree of perfection.

RALPH STONE, M. D.
JONAS A. MOTT, M. D.
CYRUS KINGSLEY, M. D.
WM. B. AUSTIN, M. D.
ORVILLE URSON, M. D.
GAVIN WETMORE, M. D.

DR. ROSE'S TREATISE ON CONSUMPTION.

Price One Dollar. Address

JOHNSON STEWART ROSE,
Office 831 Broadway, New York.

N. B.—The new postage law requires pre-payment of letters. My correspondence being extensive, applicants, to ensure replies, must enclose postage.—Money letters must be registered by the Postmasters—such letters only will be at my risk.
Oct. 1.

SUPERIOR STOCK FOR SALE.

THE SUBSCRIBER EXPECTING SOON TO remove from the State, offers for sale a number of pigs of the SUFFOLK and ESSEX breeds. Also some beautiful half breeds of both stocks.

Also, some fine fowls of the Brahma Pootra and Shanghai breeds. The white Shanghais he regards as far preferable to all other breeds, having tried nearly all. Address,

J. R. GARLICK,
Marlboro', N. C.

May 1855.

WHITFIELD'S HOTEL,

WELDON, N. C.,

JOHN SMITH, Jr., Proprietor,

Formerly of Charleston, S. C.

MEALS, FIFTY CENTS.

Left hand side going South—Right hand side going North.

August 18, 1855,

tf.

THE NEW HOTEL,

WELDON, N. C.,

IS NOW OPEN for the reception of visitors. This Hotel is new and newly furnished, and the Proprietors will use every effort to keep a GOOD HOUSE, and render their guests comfortable.

They respectfully solicit a share of public patronage.

T. J. JARRATT & Co.

Proprietors.

MEALS always ready on the arrival of the cars.
July, 1855.

32—tf.

S. W. WESTBROOKS,

Proprietor of the Guilford Pomological Gardens and Nurseries.

WOULD respectfully call the attention of our Southern citizens to his select collection of native and acclimated varieties of FRUIT TREES, embracing some 40,000 trees of the following varieties, viz: Apple, Pear, Peach, Plum, Apricot, Cherry, Nectarine, Almond, also a choice assortment of Grapevines, Raspberries, Strawberries, etc., &c.

All orders, accompanied with the cash, will receive prompt attention and the Trees neatly packed and directed to any portion of the country.

P.S.—Persons wishing Ornamental Trees can be supplied.

Nov. 1855.

9—3m.

RALEIGH FEMALE SEMINARY.

RALEIGH, N. C.

REV. W. H. CHRISTIAN, A. M., President—(aided by a number of Teachers sufficient to meet all the demands of the School.)

The exercises of this institution will commence on Wednesday, the 9th of next January. To the building already on the premises, which are spacious and comfortable, and which are to be immediately thoroughly repaired and fitted up, will be added forthwith a large three story brick building. So that there will be room for a large number of boarders. Mr. Christian, the President is not only a graduate of R. M. College, but has also graduated in several schools of the Virginia University. He has had extensive experience in teaching in Female Schools of high grade, so that persons committing their daughters to his charge may feel well assured that every effort will be made necessary to their improvement.

Terms per Session of Five Months:

Board, including eating, sleeping, lights	\$60 00
and fuel,	
English tuition,	15 00
Music on Piano and Guitar,	20 00
Use of instrument,	2 00

French, Italian, Anglo Saxon, Ancient Languages, Painting and Drawing in all their varieties, Needle-work &c, taught at the usual prices.

Persons intending to board their daughters with the President should inform him of the fact as soon as they can, that he may make his arrangements accordingly. It is preferable that each young lady should supply herself with her towels with her name distinctly marked on them as well as her other clothing. For further particulars address Prof. W. H. Christian, President; or A. M. Gorman, Esq., Sec., of the Board of Directors, Raleigh, N. C.

Payments—one half in advance, the remainder at the end of the Session.

It is very desirable that Pupils be present at the beginning of the session, as the classes will then be formed, and a delay of a few days may subject them to inconveniences.

Students will be admitted any time during the session, and charged from time of entrance only.

DIRECTORS.

C. W. D. HUTCHINGS,	A. M. GORMAN.
T. H. SELBY,	S. H. YOUNG.
J. C. PALMER.	M. A. BLEDSOE,
G. T. COOKE,	N. F. REID,
HENRY PORTER.	

Raleigh, Oct. 21, 1855.

49—tH

SAND PAPER.

A SUPERIOR Article of Sand Paper. Nos. from 1 to 6. For sale by H. D. TURNER.
Raleigh, December, 1855.

10—



These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Scrophula, Salt Rheum, Piles, of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of Piles, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also



A remedy for Coughs, Colds, Catarrhs, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a deranged state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, by weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expecto- rant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Sympson, Balsams, or Sarsaparillas, that were ever made; and a simple trial of only one box will prove this important truth.

They promote Expectoration, Loosen the Phlegm, and Clear the Lungs, and other Secretory Organs, of all morbid matter, and there is not another remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. They Cure Costiveness, produce a good, regular Appetite, and Strengthen the System.

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the *Planters' Almanac gratis*, giving full particulars and certificates of cures.

Both kinds of the above named Pills are for sale in Every Town and Village in North and South Carolina.

And at Williams & Haywood, Raleigh, N. C. May 1855. 3—

TO PLANTERS.

THE UNDERSIGNED HAS BEEN appointed Agent for the sale of "KETTLEWILLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of Cotton and Corn, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to its yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by HENRY NUTT, Agent for the State of North Carolina, at Wilmington. 3—

PURE MERINO SHEEP FOR SALE.

I HAVE A FEW YEARLING RAMS, AND Ewes, from one to three years old, which I will sell. Also three Rams older, and very choice. They can be sent to any part of the country with safety. For prices, &c., apply to I. C. PETERS, Darien, Genesee Co., N. Y. 4—

May 1855.

NORTH CAROLINA MUTUAL LIFE INSURANCE COMPANY, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the **MUTUAL PRINCIPLE**, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$20, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 90 days after satisfactory proof is presented.

DIRECTORS.

CHARLES E. JOHNSON,	WM. W. HOLDEN,
WM. D. HAYWOOD,	WM. D. COOKE,
JONH S. WILLIAMS,	R. H. BATTLE,
H. W. HUSTED,	WM. H. JONES,
WM. H. MCKEE,	P. F. PE-CUD,
CHARLES B. ROOT,	SEATON GALES,

OFFICERS.

DR. CHARLES E. JOHNSON, President,	
WILLIAM D. HAYWOOD, Vice President,	
JAMES F. JORDAN, Secretary,	
WILLIAM H. JONES, Treasurer,	
H. W. HUSTED, Attorney.	
CHARLES E. JOHNSON, M. D.	} Medical Board of Consultation.
WILLIAM H. MCKEE, M. D.	
RICH'D. B. HAYWOOD, M. D.	
R. H. BATTLE,	} Executive Committee.
W. W. HOLDEN,	
CHARLES B. ROOT,	

J. HERSMAN, General Agent.

Communications should be addressed, (post paid) to JOHN S. WILLIAMS, Secretary.

NORTH CAROLINA MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

DIRECTORS:

J. B. G. Roulhac, Raleigh.
 Henry D. Turner, do.
 J. R. Williams, do.
 T. H. Selby, do.
 C. W. D. Hutchings, do.
 James F. Jordan, do.
 James M. Towles, do.
 James E. Hoyt, Washington.
 Alex. Mitchell, Newbern.
 Joshua G. Wright, Wilmington.
 John M. Jones, Edenton.
 W. W. Griffin, Elizabeth City.
 F. F. Fagan, Plymouth.
 W. N. H. Smith, Murfreesboro'.
 H. B. Williams, Charlotte.
 Geo. A. Smith, Milton.
 O. F. Long, Hillsboro'.
 Joseph White, Anson County.
 Josh Boner, Salem.
 A. T. Summy, Asheville.

OFFICERS OF THE COMPANY.

J. G. B. Roulhac, President.
 H. D. Turner, Vice President.
 John C. Partridge, Secretary.
 John H. Bryan, Attorney.
 J. Hersman, General Agent.

John H. Williams, }
 T. H. Selby, } Executive Committee.
 C. W. D. Hutchins, }

This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam

Mills and Turpentine Distilleries,) upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid.
J. C. PARTRIDGE, Sec'y.

Raleigh, Jan. 9th, 1855.

LETTER AND FOOLSCAP PAPER'S.

200 Reams Good White Letter Paper, price \$2.
A Ream, worth \$2.50.
200 Reams Good Blue Letter Paper, price \$2.00.
A Ream, worth \$2.50.
200 Reams Good White Foolscap Paper, price \$2.
A Ream, worth \$2.50.

10c sale by
H. D. TURNER,
N. C. Book Store.

Raleigh, December, 1855. 10—

FARMER'S HALL,

RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855. no. 1—11.

AYER'S PILLS,

A new and singularly successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fever, Gout, Hu mors, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Lungs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the hearses all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

Dr. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

Hon. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINTHROP, Ex-Speaker of the House of Representatives.

ABBOTT LAWRENCE, Minister Plen. to England.

† JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, DR. J. R. CHILTON, Practical Chemist, of New York City, endorsed by

Hon. W. L. MARCY, Secretary of State.

WM. B. ASTOR, the richest man in America.

S. LELAND & Co., Prop'r's of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been used, but evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded not of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should prove as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulae by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few would be taken if their composition was known. Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge on the subject freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by scientific men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal viscera to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their irregular action to health, and by correcting, wherever they exist, such derangements as are the first origin of disease.

Being sugar wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

Practical and Analytical Chemist.

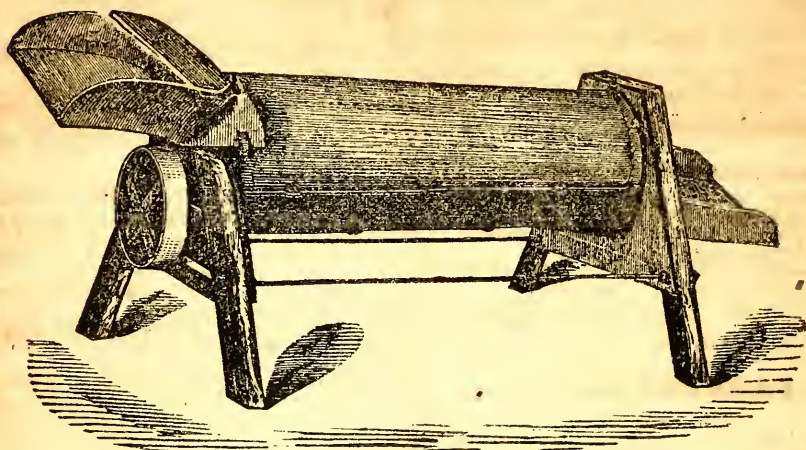
LOWELL, MASS.

PRICE 25 CENTS PER BOX. FIVE BOXES FOR \$1.

SOLD BY

P. F. Pescud and Williams & Haywood, Raleigh, N. C. March 1-55., 16—y.

BORUM & MCLEAN'S PAGE. READING'S

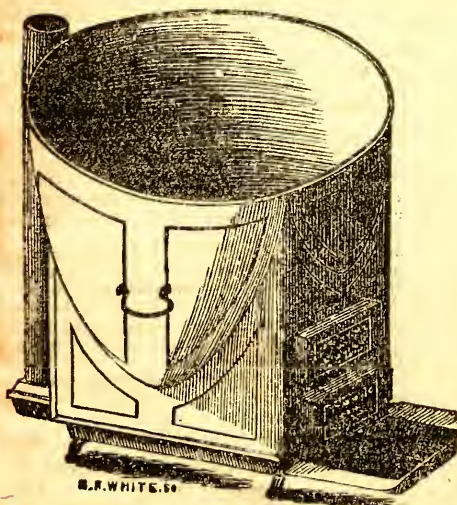


PATENT CORN SHELLER.

THIS is the simplest, strongest and most durable CORN SHELLER now in use, the cylinder and body is of iron, and works without Springs or Cog-gearing, will shell faster than one man can feed, when poured in by basket fulls, the corn runs out through the bottom while the cob passes out at the end of the machine thus separating the Corn from the Cob. They will shell when driven by a four-horse power, 1500 to 2000 bushels per day. Price \$45.

The same article, with Fan attached for chaffing, as fast as shelled, and works in like manner, price \$60. Orders filled promptly. BORUM & MCLEAN.

M'GREGGOR'S AGRICULTURAL, OR FARMER'S BOILER.



For a portable furnace and boiler, for Farmer's use in boiling Food for stock, scalding hogs, &c., &c., this is the best article used, they consume but little fuel, and require very little attention from the attendant. They can be placed out of doors, or under a shed, without the least danger from fire.

Sizes—15, 22, 33, 60, 90, 120 gallons.

Prices 14.00, 17.50, 22.50, 36.50, 51.50, 65.00 dollars.

Orders filled promptly.

BORUM & MCLEAN.

SAUSAGE STUFFERS & CUTTERS.

An excellent article for Cutting up Sausage Meat, and for Stuffing the same. The machines are separate, and can be bought so, or together, they will do the work of 8 to 10 persons by the ordinary method. The Cutters will cut into fine meat, (finer than can be chopped by hand,) at the rate of 4 lbs. per minute, or 240 pounds per hour. We have small and large sizes of the cutters at \$5, 6.50, 8.00, 10.00 each.

Sausage Stuffers at \$4.50 and \$6.00 each.

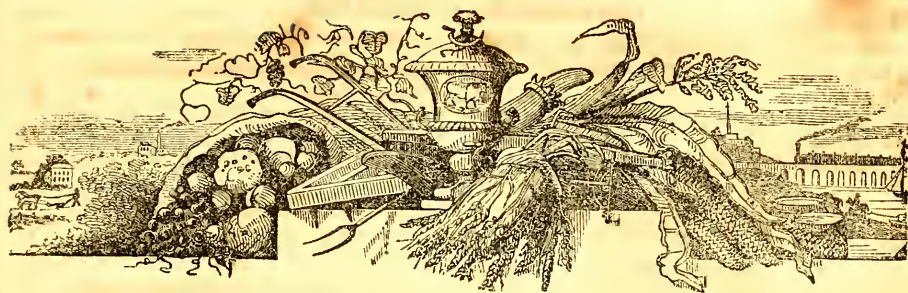
A large supply constantly on hand.

BORUM & MCLEAN.

OX YOKES AND BOWS

Of the best quality and finish, long and short. Price \$5.50 to 7.00 each.

BORUM & MCLEAN.



THE CAROLINA CULTIVATOR.

Devoted to Agriculture, Horticulture, and the Mechanic Arts.

WM. D. COOKE, Publisher.

B. S. HEDRICK, Editor.

VOL. 1.

RALEIGH, N. C., JANUARY, 1856.

NO. 11.

County Fairs.

List of Premiums

Awarded at the First Union Fair of the Counties of Granville, Warren and Franklin, held at Henderson, on the 10th, 11th and 12th of Oct. 1855.

BRANCH I.—LIVE STOCK.

FIRST DIVISION.

First Class—Thorough Bred.

- 1st premium best stallion over 4 years old, Gen. M. T. Hawkins, Warren, *\$4
- 2nd best stallion over 4 years old, R. P. Hughes, Granville, *2
- 3rd best stallion over 4 years old, J. J. Bobbitt, Granville, Dip.
- 4th best stallion over 3 years old, Sol. Fuller, Franklin, Dip.
- 1st best brood mare, over 4 years old, R. P. Hughes, Granville, *\$2
- 2nd best brood mare over 4 years old, S. L. Parrish, Granville, Dip.
- 3rd best brood mare over 4 years old, Arch. Davis, Granville, Dip.
- 1st best colt over 2 and under 3 years old, Robt. P. Hughes, Granville, *\$2
- 2nd best colt over 2 and under 3 years old, Gen. M. T. Hawkins, Warren, Dip.

First Class, not Thorough Bred.

- 1st best colt over 2 and under 3 years old, S. L. Parrish, Granville, *\$2
- 2nd best colt over 2 and under 3 years old, Archibald Davis, Granville, Dip.

- 2nd best colt over 2 and under 3 years old, James Crews, Granville, Dip.
- 1st best (thorough bred colt) 1 year old, Gen. M. T. Hawkins, Warren, *\$1
- 2nd best colt under 1 year old, Mrs. S. T. Eaton, Granville, *
- 3rd best colt under 1 year old, S. L. Parrish, Granville, Dip.

Second Class—Saddle, Harness, & Draught Horses.

- 1st best saddle horse, S. S. Cooper, Granville, \$3
- 2nd best saddle horse, L. J. Davis, Granville, Dip.
- 3rd best saddle horse, W. H. Finch, Franklin, Dip.
- 1st fastest pacing horse, C. H. K. Taylor, Granville, \$1
- 1st best pair carriage horses, Jas. Turner, Granville, *2
- 2nd best pair carriage horses, T. J. Blacknall, Granville, *1
- 3rd best pair carriage horses, Wm. B. Hughes, Granville, Dip.
- 4th best pair carriage horses, Dr. H. J. Robards, Granville, Dip.
- 1st best single harness horse, Thomas C. Hughes, Granville, \$2
- 2nd best single harness horse, W. Bareford, Granville, Dip.
- 3rd best single harness horse, S. S. Cooper, Granville, Dip.
- 4th fastest trotting horse, W. Bareford, Granville, \$1
- 1st best lot of farm horses, S. L. Parrish, Granville, *2
- Heavy draught horse, John W. Weaver, Granville, *2

1st best saddle pony, H. J. B. Clark Jr.,
Warren,
2nd best saddle pony, T. J. Blacknall,
Granville,
3rd best saddle pony, J. T. Young, Gran-
ville,

JACKS AND JENNETTS.

1st best Jack, Gen. M. T. Hawkins, War-
ren,
2nd best Jack, J. S. Jones, Warren,
3rd best Jack, Reuben Hart, Granville,
1st best two young Jacks, Wm. B. Fores-
ter, Franklin,
1st best Jennetts and colt, H. J. B. Clark,
sen., Warren,
1 mule colt, G. N. Hicks, Granville,

CATTLE.

Best 2 year old bull, Jas. R. Smithwick,
Warren,
Best milch cow, Mrs. Sally Reid, Gran-
ville,
1st yoke work oxen, S. S. Royster, Gran-
ville,
2nd yoke work oxen, J. Crews, Gran-
ville,
3rd yoke work oxen, H. J. Robards,
Granville,
Best single work ox, Reuben Williams,
Warren,
Best heifer calf 9 months old, James R.
Smithwick, Warren,

SHEEP.

Best Merino buck, Col. R. P. Taylor,
Granville,
Four French Ewes, Col. R. P. Taylor,
Granville,
Four Spanish Ewes, Col. R. P. Taylor,
Granville,
Six Merino Lambs, Col. R. P. Taylor,
Granville,

SWINE.

Two Chester pigs 5 months old T. T. Gran-
dy, Granville,
Three Nobone pigs, W. B. Reid, Gran-
ville,
Largest killing hog, Mrs. S. T. Eaton,
Granville,

POULTRY.

1 pair Sumatra Pheasant Game Chickens,
T. T. Grandy, Granville,
1 coop Shanghai chickens, T. J. Black-
nall, Granville,
1 coop Shanghai chickens, H. J. Robards,
Granville,
1 coop Shanghais, J. H. Rowland, Gran-
ville,
Largest variety, W. H. Robards, Jr.,
Granville,

BRANCH II.—AGRICULTURE.

FIRST CLASS.

Best sample wheat, S. S. Royster, Granville, *\$1
2d do. do. S. R. Hunt, Granville, dip.
3d do. do. Mrs. S. T. Eaton, do. dip.

1st best sample buck-wheat, L. A. Blank-
enship, Granville, \$1
1st best sample corn, Mrs. S. T. Eaton,
Granville, *1
2d best sample corn, Col. P. E. A. Jones,
Granville, dip.
3d best sample corn, Thos. Reavis, Gran-
ville, dip.
Best sample leaf tobacco, John M. Barnes,
Granville, *\$1
2d best sample leaf tobacco, John Clarke,
Granville, dip.
3d best sample leaf tobacco, Jas. Dicker-
son, Granville, dip.
Best sample winter oats, W. H. Robards,
Jr., Granville, *\$1
2d best sample winter oats in straw, Mrs.
E. H. Foster, Franklin, *
1
Best sample cornfield and white peas,
Mrs. S. G. Wilson, Granville, 1
2d best sample cornfield peas, W. G.
Weaver, Granville, dip.
Best sample Japan pea, J. J. Wyche,
Granville, dip.
Best white beans, W. G. Weaver, Gran-
ville, *\$1
2d best white beans, Mrs. S. G. Wilson,
Granville, dip.
3d best sample white beans, W. L. Brame,
Granville, dip.
Best sample Cotton native, J. J. Kelly,
Granville, *\$1
2d best sample do. do. A. H. Evans,
Franklin, dip.
Best Mastodon Cotton, Dr. L. G. Ward,
Greene, dip.
Best sample pea-vine hay, L. H. Kittle,
Granville, *\$1
Best sample sweet potatoes, John R. Wea-
ver, Granville, *1
2d best sample sweet potatoe, Col. P. E.
A. Jones, Granville, dip.
3d best sample sweet potatoe, Dr. James
Russell, Granville, dip.
1 lot pumpkins, Col. P. E. A. Jones, Gran-
ville, *
2 Best sample cabbage, Mrs. S. S. Royster,
Granville, \$1
Best sample Turnip, J. J. Wyche, Gran-
ville, 1
Best sample Irish potatoes, Wainwright &
Vanhook, Granville, 1
2d best sample Irish potatoes, Mrs. V. H.
Cooke, Franklin, dip.
3d best sample Irish potatoes, Jas. Gooch,
Granville, dip.
Best sample beets, Col. R. P. Taylor,
Granville, \$1
2d best sample beets, A. D. Williams,
Franklin, dip.
3d best sample beets, Mrs. A. H. Alley,
Granville, dip.
Best sample onions, Mrs. Isham Cheat-
ham, Granville, \$1

Largest variety of vegetables, consisting of rare specimens, viz: Turnip cabbage, New Zealand spinach, Chinese winter radish, Japan peas, turtle-soup beans, chicory, Chufus, Swiss-chord beet, sweet Spanish pepper, Hamburg parsly, skirret, Spanish sea-kale and Sorgho-lucre, J J Wyche, Henderson,

*7

Second Class.

Best bacon hams, Isaac Cheatham, Granville, 1
 2d best bacon hams, J. M. Barnes, Granville, dip.
 Best sample fresh butter, Mrs. R. P. Taylor, Granville, \$1
 2d best sample fresh butter, Mrs. T. T. Estis, Granville, dip.
 Best sample 6 mo. old butter, Mrs. Joe Parham, Granville, \$1
 Best sample flour, S. R. Hunt, Granville, *1
 2d best sample flour, J. H. Gooch, do. dip.
 Best sample wheat starch, Mrs. J. W. Hayes, Warren, \$1
 Best sample potatoe starch, Mrs. V. H. Cooke, Franklin, 1
 Best sample loaf bread, J. Simmons, Warren, 50c.
 Best sample loaf bread, S. R. Hunt, Granville, dip.
 Best sample large fancy cakes, J. Simmons, Warren, 50c.
 Best sample small fancy cakes, J. Simmons, 50c.
 Largest variety jellies, Mrs. Sarah Reid Granville, 2
 1 jar citron, Mrs. V. H. Cooke, Franklin, 50c.
 do. do. Mrs. E. H. Foster, do. dip.
 do. pickled pepper, Mrs. V. H. Cooke, 50c.
 do. brandy peaches, Mrs. S. S. Royster, Granville, 50c.
 1 jar brandy peaches, Mrs. S. Reid, Granville, dip.
 Best sample dried apples and pears, Mrs. S. S. Royster, Granville, \$2
 2d best sample dried apples and pears, W. G. Weaver, dip.

Third Class—Fruit.

Best sample apples, Mrs. S. S. Royster, Granville, \$1
 Best sample apples, Mrs. W. A. Eaton, Granville, dip.
 Best sample apples, Isaac Cheatham, Granville, dip.
 Best sample peaches, Mrs. W. A. Eaton, Granville, \$1
 2d best sample peaches, W. G. Weaver, Granville, dip.
 Best sample pomegranates, Mrs. W. A. Eaton, Granville, \$1
 Best sample scuppernong grapes, Mrs. V. H. Cooke, Franklin, 1
 2d best sample scuppernong grapes, Mrs. W. A. Eaton, Granville, dip.

Best sample Franklin grapes, Mrs. V. H. Cooke, Franklin, dip.
 Largest variety of fruit, Mrs. W. A. Eaton, Granville, *\$1
 Best sample raspberry-vine, Master W. D. Royster, Granville, \$1

BRANCH III.—MECHANICS.*FIRST CLASS.*

†Best two-horse plow, Wainwright & Vanhook, Granville, *\$1
 do. one-horse do. do. do. *1
 do. iron-beam do. do. do. *1
 do. two-horse plow, J. H. Gooch, Gran. *1
 do. one-horse do. do. do. *1
 do. subsoil do. do. do. *1
 do. cultivator do. do. do. *1

Second Class.

Best two-horse top buggy, W. H. Bobbitt, Warren, *2
 Best one-horse top buggy, J. J. Minatree, Franklin, *1
 Best one-horse open buggy, Eaton Haith-Cock, Granville, 2

Third Class.

Best sweep horse power, J. H. Gooch, do. wheat drill, C. Burnett, Granville, *2
 do. do. fan, do. do. *1
 Four straw cutters, do. do. *1
 Best wheat thrasher and power, J. M. Barnes, Granville, *2
 do. do. do. do. do. *2

Fourth Class.

Best set of wagon harness, two horses, Hugh McCadden, Granville, 2

Fifth Class.

Best Bedstead, Mrs. M. N. Wagstaff, Granville, 1
 Best Spring Mattress, do. do. 2
 Shuck and Cotton, do. do. 1
 Best Mohair Sofa, do. do. 2
 Damask and plain lounge, do. do. dip.
 Best wardrobe, Jas. L. McCraw, do. \$1
 2d best wardrobe, Mrs. M. N. Wagstaff, Granville, dip.

Sixth Class.

Four straw hats, Mrs. S. Breadlove, Frank. \$1
 One child's hair hat, Miss Mary Gupton, 1
 One ladies' hair bonnet, Mrs. H. Gupton, 1
 do. do. box, do. do. 1
 One willow hat, Miss Lucy A. E. Hunt, Granville, 1

Seventh Class.

Best lot leather, H. McCadden, Granville, *1
 do. drest calfskin, do. do. 1
 2d best lot of leather, W. H. Hester, do. 1 dip.
 Best lot manufactured tobacco, R. E. Jenkins, Granville, *\$1
 2d best lot manufactured tobacco, P. V. Duke & Co., Granville, dip.

Best lot cigars, R. A. Jenkins, Granville, \$1
Best lot tallow candles, Mrs. W. L. Brame, Granville, 1
Best lot soap, Mrs. S. T. Eaton, Granville, 1

BRANCH IV.—LADIES DEPARTMENT.

FIRST CLASS.

8 yards yarn cloth, Mrs. J. C. Lemay, Gran. \$2
Do. do. do. J. Crews, do. 1
Do. do. do. J. M. Barnes, do. dip.
Do. do. do. S. M. Vaughn, do. dip.
Three pieces linsey, Mrs. C. R. Lewis, do. \$2
Do. do. Mrs. J. J. Kelley, do. 1
One do. do. W. H. Weaver, do. dip.
Do. do. H. Truman, do. dip.
80 yds. cowhair cloth, Miss M. Johnson, Granville, \$2
1 ps. Flannel, Mrs. J. C. Lemay, Gran. 1
Best yarn blanket, Miss Betsey Daniel, Granville, 2
2d best yarn blanket, Miss F. Satterwhite, Granville, 1
3d best yarn blanket, Miss Sally Gill, Franklin, dip.
4th best yarn blanket, Miss L. J. Pittard, Granville, dip.
Best white counterpane, Miss S. Gill, Franklin, \$2
2d best white counterpane, Mrs. Parham, Granville, 1
3d best white counterpane, Miss L. M. Vaughn, Granville, 1
4th best white counterpane, Mrs. W. P. Harton, Granville, dip.
5th best white counterpane, Mrs. J. J. Kelly, Granville, dip.
Best 5 counterpanes, Mrs. I. Cheatham, Granville, \$2
Best quilt, prettiest pattern, Mrs. J. G. Yancy, Warren, 2
2d best quilt, prettiest pattern, Miss R. Wood, Granville, 1
Best quilt, prettiest quilting, F. Gressette, Franklin, 2
Best quilt, 1,755 pieces, Mrs. Wm. Debnam, Franklin, 1
3d best quilt, Misses S. & L. Johnson, Granville, dip.
4th best quilt, Mrs. S. G. Bobbitt, Granville, dip.
Best woolen carpet, Mrs. Doct. Field, Warren, \$2 & dip.
Best cowhair and cotton carpet, Mrs. W. H. Hughes, Granville, \$1
2d best cotton carpeting, Mrs. C. Daniel, Granville, 1
Best hearth rug, Mrs. Dr. Field, Granville, 2
1 ps. Flax Cloth, Mrs. J. C. Lemay, do. 2
1 Flax Table cloth, Miss M. Gupton, Fr. 1
1 Flax Linen towels, Mrs. J. Crews, Gran. 1
2 Linen table cloths, do. do. do. 2
Cotton Plaids, Mrs. S. G. Wilson, do. 1
Cotton & woolen vesting and carpet bag, Mrs. H. H. Rowland, Granville, 2

1 set bed curtains, Miss A. Kittrell, Gran. 1
Do. valance, Miss N. Morris, Franklin, 1
Do. bed fringe, Mrs. S. G. Wilson, Gran. 1
1 knitt counterpane, Mrs. E. Southerland, Warren, 2
1 stuffed counterpane, Mrs. E. R. O'Brien, Warren, 2
1 pr. yarn socks, Miss M. J. Vaughan, Warren, 50c.
1 pr. yarn socks, Mrs. T. W. Pleasants, Warren, 50c.
1 pr. cotton socks, Mrs. E. Haitcock, Granville, 50c.
1 pr. cotton hose, Miss L. Insko, Frank. 50c.
1 pr. cotton hose, openwork, Mrs. W. Debnam, Franklin, 50c.
1 pr. cotton hose, Mrs. T. Satterwhite, Granville, dip.

Second Class—Ornamental Needlework.

2 Best table cover, Miss. C. J. Thurman, Granville, \$3
2d best table cover, Miss Cooper, Gran. 2
3d do. do. Mrs. S. A. Barnett, Granville, 1 dip.
1 white stuffed cover, Miss R. Rigan, Granville, \$1
1 ottoman cover, Miss Roland, Granville, 2
1 ottoman stuffed cover, Miss M. E. Royster, Granville, 1
1 ottoman stuffed cover, Miss M. A. Marrow, Granville, dip.
1 ottoman stuffed cover, Miss L. O. Gregory, Granville, dip.
1 divan cover, Miss A. Hamlet, Gran. 2 dip.
1 worked collar, Mrs. E. A. Jones, Frank. \$1
6 do. do. Graves & Wilcox, War. 3
1 crochet do. Miss M. Cooke, Raleigh, dip.
1 worked handkerchief, Miss L. E. Foster, Franklin, \$1
3 pr. worked sleeves, Mrs. P. E. A. Jones, Granville, 2
1 pr. worked sleeves, Mrs. W. H. Hughes, Granville, 1
1 worked shirt, Mrs. S. T. Eaton, Gran. 2
1 do. do. Miss C. J. Thurman, do. 1 dip.
1 do. linen band, Miss Fletcher, do. \$1
1 muslin apron, Miss M. A. Reid, do. dip.
1 worked child's dress, Miss S. Tate, Franklin, 2 dip.
1 worked child's dress, Mrs. A. D. Williams, Franklin, \$2
1 pr. worked pantalets, Miss E. C. Williams, 9 yrs., Franklin, 1
1 embroidered child's dress, Mrs. R. A. Hamilton, Granville, dip.
1 embroidered child's dress, Mrs. T. G. Kittrell, Granville, dip.
1 shirt vest, Mrs. W. P. Harton, Gran. \$1
1 shirt vest, Miss Bettie White, do. 1
2 shirts, Mrs. W. H. Weaver, do. 2
1 fancy paper basket, Miss P. E. Yancy, Granville, 1
2 boxes wax flowers, Miss M. A. Reid, Granville, 1

2 fire screens, Mrs. Dr. Lewis, Granville,	1
2 oil paintings, 1 Crayon, 1 Pastel, Graves & Wilcox, Warrenton,	5
2 oil paintings, Miss M. A. Parrish, Oxford,	3
2 Grecian paintings, Miss H. E. Thompson,	2 dip.

Discretionary Premiums.

1 fancy work table, Mrs. A. C. Harris, Granville,	\$1
1 wire safe, Wm. L. Ellington, Henderson,	*2
1 do. do. C. Burnet, do.	1
1 lot tin ware, Jas. Furguson, do.	2
One Essay on the best mode of the Cultivation of Corn, Dr. S. G. Ward, Warren,	*2

† The committee on plows not being able to decide between the two exhibitors, awarded the premiums to each.

*The stars indicate the Arator or Cultivator as an additional premium. Though persons receiving more than two premiums so marked, are required to take but one copy of each, and will be paid the remainder in money. They will be forwarded from the office of publication, as soon as we can ascertain the address of persons entitled to them and the number of copies required. Premiums paid on application or order, Thos. J. Blacknall, Treasurer, Henderson.

A. C. HARRIS, *Chm'n, pro. tem.,*
Executive Committee.

Rowan Agricultural Fair.

The Rowan Agricultural Society held its Annual Fair at the Mineral Spring, Nov. 2d, 1855, and awarded the following list of premiums:

To Pinckney Knox, for the best mule over one and under two years old,	\$2
" B. M. Hyde, best mule over two years,	2
" do. do. under one year,	2
" Pinckney Knox, best brood Mare,	2
" E. D. Austin, 2d best do.	2
" P. B. Chambers, best Filly, 2 years old,	2
" James Cowan, 2d best, do. do.	2
" P. Knox, best horse colt, under 1 year,	2
" John F. Foard, best sow and pigs,	2
" J. D. Johnston, best boar,	2
" do. best pair pigs,	2
" P. B. Chambers, best bull,	2
" D. B. Wood, best milch cow,	2
" John F. Foard, for the best heifer over one year,	2
" J. D. Johnson, for the best bull calf, under one year,	2
" T. C. Graham, for the best pair sheep,	2
" M. E. Flemming, largest amount of corn, on one acre—92 1-2 bushels,	
" J. D. Johnson, 2d largest—87 bushels,	
" J. E. Adams, 3d largest—70 bushels,	
" do. largest on 10 acres—550 bushels,	

" D. B. Wood, largest amount of corn on 8 acres—443 bushels,	3
" O. G. Foard, largest amount raised on 6 acres—252 bushels,	2
" J. D. Johnson, largest amount of wheat on one acre—62 1-2 bushels,	4
" W. P. Burke, 2d largest amount of Wheat on one acre—31 1-2 bushels,	3
" S. D. Rankin, 3d largest amount of Wheat on one acre—30 1-2 bushels,	2
" P. B. Chambers, 4th largest amount of Wheat on one acre—30 bushels,	1
" J. E. Adams, largest amount of Oats on one acre—67 bushels,	2

The Officers for the next year are Mr. P. B. Chambers, *President*; Dr. Rankin, Dr. Wood, J. G. Flemming and Thos. Burke. *Vice Presidents*; O. G. Foard, *Treasurer*; John F. Foard, *Recording Secretary*; D. B. Wood, *Corresponding Secretary*.

J. F. FOARD, *Sec'y.*

Davie Agricultural Fair.

Premiums awarded by the Agricultural Society of Davie County, held in Mocksville, on Friday and Saturday, the 26th and 27th days of October, 1855.

LADIES' DEPARTMENT.

1st prem. Mrs. B. F. Lunn, Counterpane,	\$1 00
2d best, Mrs. J. D. Johnston, "	75
3d best, Mrs. V. N. Ward, "	50
1st best Bed Blankets, Mrs. J. D. Johnston,	1 00
2d " " Mrs. V. N. Ward,	75
1st " Quilt, Miss Eliza Miller,	1 00
2d " " Mrs. B. F. Lunn,	75
3d " " Mrs. F. E. Mumford,	50
1st " Coverlet, Mrs. M. Fulford,	1 00
2d " " Mrs. Nancy G. Lyons,	75
1st " Janes Cloth, Mrs. Thos. Furches,	1 00
2d " " Mrs. M. Brock,	75
3d " " Mrs. M. Fulford,	50
1st " Butter, Mrs. Wm. Perry,	1 00
2d " " Mrs. J. D. Johnston,	75
1st " Carpet, Mrs. Geo. W. Johnston,	1 00
2d " " Mrs. M. Fulford,	75
3d " " Mrs. Sarah Henderson,	50
1st " Need'e Work, Mrs. W. A. Meroney,	75
2d " " Mrs. B. Brown,	50
3d " " Miss L. J. Armfield,	25
Best Pickles, by Mrs. J. M. Johnson,	25
Best Cordial, by Mrs. J. M. Johnson,	50
Best Painting, Miss Roena Martin,	1 00
<i>Committee</i> —George W. Johnston, J. W. Wiseman and T. M. Young.	

MECHANISM.

5 Best sole and upper Leather, H. Cook,	\$2 00
3 Best Flour, Wm. March, Sen.,	2 00
2 Best Subsoil Plough, M. Cuthrell,	1 00
Best Fan Mill, H. B. Dowler & Co.,	2 00
5 Best Buggy, William Griffin,	2 00

Best Boots, Thomas M. Young, 2 00
Best Manufactured Tobacco, A. Deaver,

Committee—William Griffin and J. A. Hendricks.

AGRICULTURAL PRODUCTS.

Greatest yield of Corn to 1 Acre, to Geo. Wilson, 153 bushels, prem. \$5 00
2d Levin Ward, 115 bushels, prem. 3 00
1st Improved acre, 146 bu. Geo. Wilson, 8 00
2d " " 71 bu. Max'l. Cuthrell, 5 00
Greatest yield of Wheat, 1 Acre, 50 2-28 bushels, Max'l. Cuthrell, 6 00
2d greatest yield of Wheat, 1 Acre, 38 bushels, Geo. W. Johnson, 4 00
3d greatest yield of Wheat, 1 Acre, 36 1-2 bushels, Berry Foster, 2 00
Greatest yield of Tobacco, 1 Acre, 952 lbs., Max'l Cuthrell, 4 00
Greatest yield of Irish P.atoes 1-8 Acre, 67 3 4 bushels, Wm. Clouse, prem., 2 00
Greatest yield of Sweet Potatoes, 65 bus., J. P. Ellis, prem., 2 00
Best specimen of Leaf Tobacco, Wm. H. Perry, prem., 50
Best specimen of Beets, J. N. Brock, 25
" " of Pumpkins, " 24
" " of Wheat, J. D. Johnston, 50
" " of Onions, Mrs. M Fulford, 25
" " of Peas, J. N. Brock, 25
" " of Seed Corn, " 50

Committee—Maxwell Cuthrell, Berry Foster, and James N. Brock.

ANIMALS.

For the best Stallion, Wm. Brunt, \$3 00
For the best Horse Colt, over 1 and under 2 years, Wm. P. Ward, 2 00
Best Horse Colt, under 1 year old, Wm. March, Sen., 2 00
Best Mule, under 1 year old, Tyre Glenn, 2 00
Best Mule, over 1 and under 2 years old, R. F. Johnston, 2 00
Best Jack, Tyre Glenn, 2 00
Best Native Bull, J. D. Johnston, 2 00
Best Imported Bull, Thomas M. Young, 3 00
Best Cow and Calf, B. F. Lunn, 3 00
Best Calf, under 1 year old, J. D. Johnston, 1 50
Largest Hog, 840 lbs., B. F. Lunn, 3 00
Largest Boar, under 2 years old, J. D. Johnston, 3 00
Heaviest Hog, 1 year old, 500 lbs., Berry Foster, 4 00
2d heaviest Hog, 1 year old, 356 lbs., Maxwell Cuthrell, 3 00
2d largest Hog, 599 lbs., Max'l. Cuthrell, 2 00
Best pair of Chickens, Max'l. Cuthrell, 25

Committee—S. L. Howell, R. F. Johnston and Levin Ward.

If Buncombe or Edgecombe has or can beat the above yield of Corn or Wheat, Davie will try again.

J. M. JOHNSON, *Cor. Sec'y.*

Buncombe Agricultural Fair.

The Annual Fair of the Buncombe County Agricultural Society came off last Saturday, the 10th instant. The day was fine, and the turn out respectable. Below will be found the awards of the several Committees:

J. W. Woodfin, 1 yoke of oxen,	\$3 0 0
E. Clayton, 1 milch cow,	2 00
B. S. Gash, 1 stallion,	3 00
J. P. Smith, 1 horse colt, 2 years old,	2 00
Michael Luther, 1 horse colt, 6 mo. old,	2 00
Robert Gilliam, 2d best colt,	1 00
J. W. Woodfin, 1 brood mare,	2 00
John Burgin, harness horse,	2 00
J. W. Woodfin, saddle horse,	2 00
" " Jack,	3 00
Henry Stephens, 1 four year old mule,	3 00
N. W. Woodfin, 1 bull,	2 00
J. W. Woodfin, one 2 year old heifer,	2 00
J. W. Patton, yearling calf,	1 00
J. P. Smith, 1 fine bull calf,	1 00
H. Stephens, 1 lamb 8 mo. old, 120 lbs.,	1 00
A. T. Summey, largest hog,	1 00
G. W. Shackelford, best lot of hogs,	2 00
N. W. Woodfin, brood sow,	1 00
B. S. Gash, 1 Jennette,	2 00
N. W. Woodfin, jack one year old,	2 00
" " 2d finest cow,	1 00
J. W. Patton, first best cow,	2 00
W. T. Dickenson & Co., 2 shuck and cotton mattresses,	2 00
J. W. Wilson, one suit of clothes,	2 00
" " one fine bridle,	50
J & J. Hildebrand, 1 card table,	1 00
" " 1 work "	1 00
" " 1 guitar,	2 00
R. S. Alexander, side saddle,	2 00
" " set of harness,	1 00
Mrs. Jane Alexander, fly brush,	50
" " infant's dress,	50
W. D. Rankin, light and heavy harness,	1 00
" " 2 pieces upper leather,	1 00
" " 1 calf skin,	1 00
Jas. M. Smith, sole leather,	1 00
" " specimen of flour,	1 00
Daniel Mills, pair of boots,	2 00
Mrs. J. H. Murphey, patch-work quilt,	1 00
" " specimens of yarn	
and starch,	1 00
H. Stephens, specimens of blankets,	2 00
Miss Mary A. Baird, collar and undersleeves,	1 00
J. R. Shuford, flannel and basket,	50
Miss Mary Shackelford, embroid'd dress,	50
Mrs. T. P. McClure, muslin collar,	50
Mrs. Sarah A. Smith, peach preserves,	50
" " quince jelly,	50
" " domestic carpet,	50
A. T. Summey, best butter,	1 00
A. B. Jones, woolen socks,	60
Mrs. N. W. Woodfin, quince marmelade,	50

N. W. Woodfir, specimen of smithing,	3 00
Miss Rebecca Richmond, embroidered chair pattern,	2 00
Miss Alice Sheldon, pair of ottomans,	50
Miss J. Wagner, " " "	50
Miss Mary J. Nabb, mats and basket,	50
Miss Anna Woodfin, mats,	50
J. R. Shuford, coop of Shanghai chickens,	1 00
Col. W. M. Hardy, pair African geese,	50
G. W. Shackelford, Muscovy ducks,	50
I. B. SAWYER, Sec'y.	

Miscellaneous.

Climate.

An erroneous idea generally prevails respecting climate, as affecting personal comfort. The dwellers in the sunny South pity the New-Englanders, because doomed to shiver in so cold a climate. They, in turn, bless their stars that they are not wading in the snows of Newfoundland.

I have been led, by observation and experience, to doubt whether the people of any one country have much, if any advantage, in the matter of climate, over others.

Our ideas of pleasure and pain are intimately connected with, if not based upon the principle of contrast. In our idea of temperature, we have less regard to the actual than to the comparative degree of warmth.

In the report of one of the exploring expeditions in the northern seas, it is said that, on a certain occasion, the crew were greatly elated with signs of a thaw, the mercury having risen to 40 deg. below zero. Having been subject to a much intenser degree of cold, they felt, as did the boy, whose father had administered to him a severe flagellation, "greatly refreshed."

It may well be doubted whether the people of Maine suffer more from cold than do they of Virginia.

Touching the weather, it is as much as it is with the tariff—all that the people want is to have the line of governmental policy settled—to know what can be depended upon. So of the weather. The down-easter, knowing that from the middle of November to the middle of April the ground is to be covered with snow, and uninterrupted cold weather is to prevail, he wraps his fur coat about him, inflates his

lungs, braces up his nerves, and thinks no more of the cold than the "rugged Russian bear."

The dweller in the Old Dominion, on the other hand, regarding warm weather as the rule, and cold as the exception, makes no provision for the latter. But when the northern blasts come, as come they will, he wraps his fig-leaf coat about him, and seeks shelter within the enclosure of his airy mansion, so constructed as to exclude heat rather than cold.

Then there is another consideration which greatly favors the dwellers in cold latitudes.—While the earth is covered with snow, there is but little evaporation. The atmosphere is consequently dry, and storms are unfrequent.—Where there is no snow, it is far otherwise.—The whole surface being covered with water, evaporation is rapid, and the atmosphere is surcharged with vapor, and the peculiar chillings which characterize a March wind in New-England, prevail during the winter months.

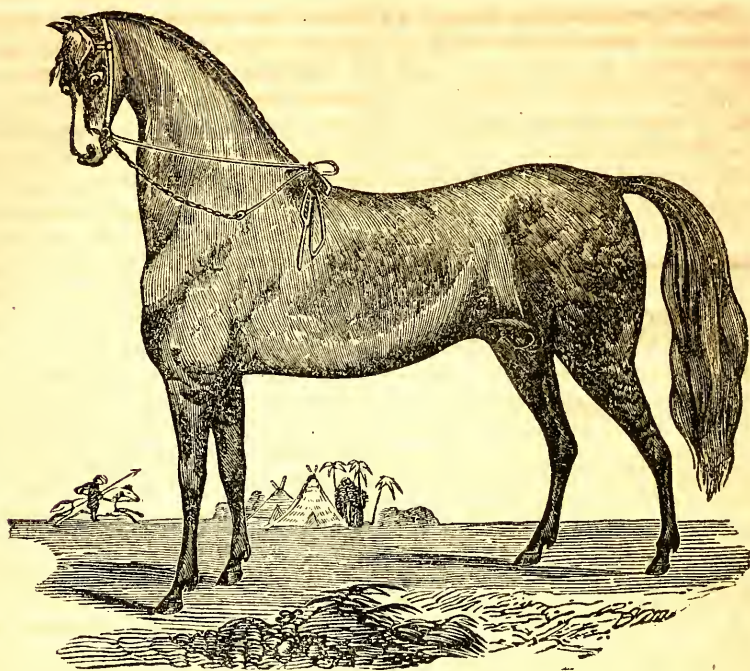
Agriculturally, the snowy region has many advantages. It is better for the *soil* to be covered during the winter months. That there is any *virtue* in the remark, "snow is the poor man's manure," I don't believe. But certain it is, that grasses and grains are benefited by being thus protected.

Snow is an imperfect conductor of *caloric*, consequently the surface being protected from the cold of mid-winter, the heat from within dissolves the frost, and when the snow disappears in spring, the frost is gone from the soil. It is not uncommon to find the grass growing before the snow is off. Fields are ready for plowing soon after they are bare; so that stock will live, and seed may be gotten into the ground nearly as soon in Vermont as in Connecticut. Then, for doing business, the snowy regions have greatly the advantage. Lumbering is with great difficulty carried on where there is no snow. The lumber lands in Maryland and Virginia would be worth twice as much as they now are with northern winters for the removal of the lumber.

But I will say no more lest I get up an emigration fever towards Greenland.

R. B. H.

Farmers, make a proper use of your time, and remember that when it is once gone it can never be recalled.



The Arabian Horse.

The above is a portrait of an Arabian steed, as bred by the Arabs. The chief value of this race of horses lies in their great power of endurance on a small allowance of food. They are splendid animals and they are often sent as presents to the crowned heads of Europe, and are highly prized. They have been imported to the United States but the climate is unsuited to their habits and they soon degenerate.

A writer in one of our exchanges makes the following remarks:—

“The beauty, intelligence, and power of Arabian horses, have furnished a theme for many travelers. The breed is doubtless of great antiquity, and has probably been cultivated for a longer period than any other. It has been thought, and not without reason, that the writer of the sublime description of the war-horse, in the book of Job, must have had in his mind's eye an animal corresponding in character to the high-bred Arabian. The prophet Habakkuk described the horses of the Chaldeans as ‘swifter than the leopards, and more fierce than the evening wolves.’ Some idea of the kind of horses thus alluded to, may be obtained from the sculptured figures of those animals found

among the ruins of Nineveh and Babylon, accurate copies of which have been given us by Mr. Layard and others engaged in the examination of those relics of antiquity: and the resemblance in the general outline of those figures of the ancient Assyrian and Chaldean horses with the present Arabian, is striking. Although the qualities of the Arabian have been frequently spoken of, we find in the late work of Mr. Layard, many new and interesting facts relative to this noble animal.

“Mr. Layard, as well as other travelers, informs us that the Arabs divide their thorough-bred horses into five branches or families, which some declare are descended from the five favorite mares of Mahomet. The names of these families vary, however, among different tribes. These five families are termed the *Kamse*; and an intelligent Arab chief informed Mr. Layard that there was only one family of celebrated horses in the Desert, that could not be traced to this source. The prices demanded and paid for these horses are enormous.

“Many recollect the challenge sent a few years since by the Viceroy of Egypt to the English sportsmen, to run a certain number of

horses a long distance—twenty miles, if we rightly remember. After considerable parley, the English declined the offer. Mr. Layard states that the Viceroy had sent agents into all parts of the Desert to purchase the best horses. As high as £1,000 each (\$5,000) was paid for some mares; and in one case no less than £1,200 (\$6,000) was offered and refused for a particular mare. During Mr. L.'s residence in the Desert, he saw several of these fine horses purchased for the Viceroy; and he says—'had the Pacha's challenge been accepted, the best blood in Arabia would have been matched against the English racer.'

"It will be seen from the following extract that Mr. Layard doubts whether any Arab of the best blood has ever been taken to England, and if the English have not obtained such, there is less probability of their ever having been brought to America. He thinks that most of the horses which have been obtained in the East, were crosses between the Arabian and the Turkish, or Persian races, which were originally of a very different character from the genuine Arabian. It will be noticed also, that the best Arab horses are what some of our horse-breeders would call small—rarely reaching fifteen hands in height. But it is well to note the fact, in this connection, that the English and American horses most noted for their value in improving the race, as well as for their powers of endurance when tried at long distances, have seldom exceeded this height."

Here is Mr. Layard's account of them:—

"The Arab horse is more remarkable for its exquisite symmetry and beautiful proportions, with wonderful powers of endurance, than for extraordinary speed. I doubt whether any Arab of the best blood has ever been brought to England. The difficulty of obtaining them is so great that they are scarcely ever seen beyond the limits of the Desert. Their color is generally white, light or dark gray, light chestnut and bay, with white or black feet. Black is exceedingly rare, and I never remember to have seen dun, sorrel or dapple. I refer of course to the true-bred Arab, and not to the Turcoman or to Kurdish or Turkish races, which are a cross between the Arab and Persian.

"Their average height is from fourteen hands to fourteen and three-fourths, rarely reaching fifteen; I have only seen one mare that exceeded it. Notwithstanding the smallness of their

stature, they often possess great strength and courage. I was credibly informed that a mare of the Manekia breed, now dead, carried two men in chain armor beyond the reach of their Aneyza pursuers. [Mr. L. states that the Aneyza and Shannmar tribes have the best horses.] But their most remarkable and valuable quality is the power of performing long and arduous marches upon the smallest possible allowance of food and water. It is only the mare of the wealthy Bedouin that gets even a regular feed of about twelve handfuls of barley, or rice in the husk, once in twenty-four hours. During the spring alone, when the pastures are green, the horses of the Arabs are sleek and beautiful in appearance. At other times they eat nothing but the withered herbs and scanty hay gathered from the parched soil, and are lean and unsightly. They are never placed under cover during the intense heat of an Arabian summer, nor protected from the biting cold of the Desert winds in the winter. The saddle is rarely taken from their backs, nor are they ever cleaned or groomed. Thus apparently neglected, they are but skin and bone, and the townsman marvels at seeing an animal which he would scarcely take the trouble to ride home, valued almost beyond price. Although docile as a lamb, and requiring no other guide than the halter, when the Arab mare hears the war-cry of her tribe and sees the quivering spear of her rider, her eyes glitter with fire, her blood-red nostrils open wide, her neck is nobly arched, and her mane and tail are raised and spread out to the wind. The Bedouin proverb says, that a high-bred mare when at full speed, should hide her rider between her neck and tail.

"The Arab horse has but two ordinary paces, a quick and easy walk, sometimes averaging between four and five miles an hour, and half running canter. The Bedouin rarely puts his mare at full speed unless pursued or pursuing. In racing, the Arabs, and indeed the Easterns in general, have no idea that the weight carried by the rider makes any difference."

Some of the customs observed by the Arabs in regard to horses taken in war, are as follows:

"Whenever a horse falls into the hands of an Arab, his first thought is how to ascertain its descent. If the owner be dismounted in battle, or if he be even about to receive his death blow from his enemy, he will frequently exclaim, 'Fellan! (such a one) the mare that

fate has given to you, is of noble blood.' " He then describes her breed, and tells who owned and rode her dam. "Nor will a lie," says Mr. Layard, "come from the mouth of a Bedouin as to the race of his mare. He is proud of her noble qualities, and will testify to them as he dies. After a battle or foray, the tribes who have taken horses from the enemy will send an envoy to ask their breed, and a person so chosen passes from tent to tent unharmed, hearing from each man as he eats his bread, the descent and qualities of the animal he may have lost."

The attachment of the Arab to his horse, is only equalled by his observance of the rules of hospitality. Strangers must be entertained in an appropriate manner at almost any sacrifice. Mr. Layard refers to a story still current among the tribes of the Desert. A Sheikh was owner of a matchless mare, whose fame had reached the Greek Emperor. Ambassadors were sent from Constantinople to ask the mare of the chief, and to offer any amount of gold in return. When they announced after dining, the object of their embassy, it was found, that the tribe, suffering from a grievous famine, and having nothing to offer their guests, the generous Hatten had slain his own priceless mare to entertain them!

What Farmers Need.

We find the following excellent paragraphs in a report of an address by the Rev. Dr. Huntington, before the Middlesex South Co. (Ms.) Agricultural Society:

"Mr. Huntington announced as his subject not the results of farming but the farmer himself, and the culture of the cultivator. One of the questions for us was what kind of men was it necessary to be in order to raise anything to the best advantage. In the first place he spoke of the dangers arising from the necessary preponderance of manual labor in the farmer's occupation, in which intellect was apt to abdicate, and leave everything to rote—plough, sow, cultivate, reap, and thrash, was the rule, binding a man down to physical toil. This should not be, and the farmer should cultivate his intellect, use his head, make his farm his subject instead of being its slave—and here was the merit of modern farming—it was awaking the farmer from his lethargy, and ennobling his pursuit in the eyes of the world.

"One thing which the model farmer wanted, was an invigoration of the perceptive faculties, the getting the eyes open to facts which turn up, whatever way they come, and here was the chief benefit of cattle shows. The farmer goes home with an impulse that he will do his farming better, and faith that it can be done better. Another mental faculty he needed was appropriation, to turn to account what he had seen and heard, and having verified what was good, to repeat it aloud. The brain, however, should be trained to discriminate between what was mere speculation and what was theory. The value of this was illustrated at length; and earnest attention to improving, with the aid of the brain, the home lands, the home stock, was claimed to be as good, perhaps, as running off to Western prairies or foreign bloods as the only sources of improvement.

"The natural advantages the farmer had over the average of city classes, in depth of thought and greater knowledge, was spoken of; and though the citizen knew more of a variety of subjects, yet it was for the farmer by his brain to grasp them all, and be the deep thinker in all branches of knowledge. From the brain the speaker passed to the hand, and in elaborating this he spoke of the farmer as an exemplification of the benefit of obedience to the sentence—in the sweat of the brow shalt thou earn thy bread—comparing the effeminacy of those who live without labor with the hardihood of those who earn their bread abroad.

"The third elemental force necessary to a complete agricultural manhood, was that faculty to whose exercise we gave the name of taste. True manliness was impossible without sensibility to the beautiful, and it was a sin to crush it out by contempt or kill it out by neglect.

"There were two directions in which we should exercise taste—in the spirit of order in the useful, and in the ministry of the purely beautiful, raising us into an atmosphere of generous refinement. Music, painting, gardening, floriculture, should be cherished if we would have our children grow up with that love of home which is the mightiest protection against evil.

"The fourth necessary power, the heart, was spoken of as the greatest of all, a sovereign ruling by divine right, the medium of holy influences. It was a sign of a boor, a blunderer, and a bear, to empty the bosom of gentle

feelings. The noblest and boldest in earth's history were those who had borne in their hearts feelings of love. We might judge a farmer's heart by the way he treats his brutes. We should not rob our families of politeness to pay it all to the trader we patronize."

Under Drains.

MESSRS. EDITORS:—In the last number of your valuable paper, I see a communication over the signature of "REMONDS," who seeks information respecting Under Drains. I myself have been diligently seeking the same information for twenty years past, and obtained nothing satisfactory until I received the January number of the *Soil of the South*, for 1853, which contained NELSON CLAYTON's premium essay on Draining. This essay throws much light upon the subject, and I respectfully refer REMONDS to the above named number of your paper, which alone will pay me three hundred fold for my subscription should it even continue one hundred years.

From my own experience, I can say Mr. CLAYTON's plan will do, yet I have improved on it much, both in the saving of labor and preserving timber.

My plan is simply this: Instead of two rails, as Mr. CLAYTON would have, placed opposite each other in the ditch, I use only one, first covering the bottom of the ditch with boards, if there be either mud or sand. I then place my rail on one side, directly on this flooring of boards, then I place another layer of boards, resting one end upon the rail and the other upon the layer previously made, or upon the bottom of the ditch, there being no necessity for the first layer, if the bottom of the ditch is firm. The plan proposed here has this advantage over CLAYTON's: *one end of the board always rests in the water*, consequently there is no decay of timber; whereas by placing both ends of the boards upon rails, some will evidently be out of the water in consequence of bumps or unevenness in the rails, in which case the timber must decay.

REMONDS will find his plank plan too expensive, besides it is not practicable, for it will not suit the crooks and lumps in the ditches.

Three hands can get timber enough to cover three hundred yards in one day after my plan;

if there is no double layer of boards; if there is a double layer, one hundred and fifty yards.

The boards may be gotten out of young poplars or any other growth that will split straight, on the same lands where the drains are.

I have examined the timber thus laid two years afterwards, and found it perfectly sound. There need be no apprehension of decay so long as it remains wet, which will always be the case in marshy or springy lands.

I will now say a few words respecting the ditches.

In the first place, they must be properly located or labor will be in vain. All wet places must be encircled; but I would not run so close to the border as Mr. CLAYTON, ten steps being sufficiently near. It matters but little how often the ditch is crooked or how many stumps or trees it runs round, as the rails can be easily notched and bent so as to fit the ditch.

A great deal depends upon the depth of the ditch—anything under four feet will not remain unless it be at the beginning, which is always at the centre ditch or at the creek. Five or six feet will answer much better—the ditches should be narrow—just wide enough to work in conveniently. The bottom of the ditch should in all cases be at least one foot. For ditching, Irishmen should be employed, negroes being too bungling, slow and not calculated to take advantages; but while Irishmen can do the work well, their judgment will not do in all cases to locate the ditch.

Three years ago my attention was directed to what is called marshy land, many places of which I could run a pole eight feet beneath the surface without discovering any change of soil. This land I have dried and has now the best corn on it I ever saw. Fifty acres of this land I have ditched, one-half of it in cultivation bringing about fifty bushels of corn per acre. I will only add, this corn grew upon what was formerly a gum marsh, which, without the labor I bestowed upon it, was not worth ten cents per acre, even for stock.

I have thus, Messrs. Editors, given my ideas relative to under drains and marshy lands, in a plain, unvarnished style, hoping I have thrown some light upon a subject of such vast importance to Southern farmers.

JOHN KITRELL.

Sandersville, Ga., Oct., 1855.

Soil of the South.



The American Crab Apple.

This rare and beautiful apple is worthy of extensive cultivation, yet but few are grown at the North. Mr. S. P. Fowler, of Davenport, Mass., writes to a contemporary as annexed. We presume that Mr. F. can furnish *scions* of this variety. Gentlemen who possess fruit of rare excellence will please forward their descriptions.

DEAR SIR:—I send you some specimens of the species of wild apples, found in the greatest abundance in the more southern portion of our union. It is peculiar to this country, being distinct from the common apple we cultivate, this being found in the temperate parts

of Europe and Asia. It is indigenous in the Western and Middle States, and does not occur in Massachusetts. It is first seen in New York, which is probably not far from its northern limits. It would probably be an interesting tree in the garden, being distinguished for its dwarfish habits, its beautiful rose-colored flowers, diffusing a delightful odor all around, and its green fragrant fruit. It can be propagated from seed, or by budding, or grafting it upon the stock of the common apple tree. The fruit, as you will perceive, is small, and very sour, but it is capable of being made into a fine preserve with the addition of sugar.

Yours, &c.,

S. P. FOWLER.

Turpentine Making.

MR. EDITOR:—As no one has as yet given you an article on the Turpentine business, I take the liberty of so doing, in compliance with your request, contained in your April number of the *Soil of the South*. The first, and certainly the most important things to be taken into consideration, are, “the quality of the pines and the location”—as you say in your March number. As to the quality of the pines, no country affords better than Florida, Georgia and Alabama. I have been much over Florida; much over southern Georgia, and on both sides of the Chattahoochee, to Eufaula and Columbus—and in riding the river road, I was astonished to see such very heavy-topped, healthy,

vigorous pines; especially from Florida line to Fort Gaines and Eufaula. I do not think the South, not excepting any State, can show pines better adapted for the successful and *large production* of Turpentine, and so close to a navigable river. The Chattahoochee, it its true, (too true of late) is often too low for steamboats to run. But compare it with the North Carolina rivers and creeks which have heretofore supplied the world with this article. There they often have to wait for a winter freshet to get their crop to market on rafts. Whereas, the Chattahoochee is never (not even now, Oct. 10th,) so low but that rafts of turpentine might be floated out and down to Apalachicola; and N.

Carolina experience shows that this mode is the best and cheapest to get it to market; it not costing more than one-half of what steamboats can afford to freight it at. Therefore, for the above reasons, the pine woods in and near Chattahoochee and lower part of Flint rivers are well—finely adapted to the successful production of turpentine.

As to the yield of profits of hands engaged in this business—in comparison with those in cotton, is about as follows:

Say that one hand in cotton will make five bales of 500 pounds each, together with corn enough to feed himself and the horse he plows, this is certainly enough; four bales of 400 lbs., would probably be nearer a true average.

Then we will take 230 barrels of turpentine, per hand, many make 250, and some go to 300, but any good hand, in a task of *well cut* boxes ready for him, by the first of March, (the proper time to begin working them) will make his 250:

5 bales, 500 lbs. each, is 2,500 lbs. at 8 cts.	\$200 00
230 bbls. turpentine at \$2, is,	\$460 00
Deduct for 12 bush.'s of corn,	
at 80 cts. per bushel, is	\$10 40
Deduct for 230 lbs of bacon	
at 10 cts. per lb.,	23 00
Deduct for 230 empty bbls.	
for turpent'e, at 40c. each,	92 00
Deduct for hauling same to	
River,	46 00

Making 171 40

leaving after paying for corn, bacon, empty
barrels and hauling, net profit, \$288 60
Which is better than the hand in
cotton by \$88 60

And in making the above calculation, you see
put cotton on a large yield at a good price, and
turpentine on a small yield at small prices; but
take

5 bales of but 400 lbs. at 8 cts., is	\$160 00
250 barrels at \$2 each,	500 00
Deduct expenses,	179 40

leaves nett earnings of \$320 60
better than the hand in cotton by \$160 60

Low as turpentine has been, and unfavorable
is the season now about closing has proved, but
few producers will average less than \$2 per bar-
rel, on the river bank. But owing to the very
high rate of provisions of all kinds, those who

have had to buy everything and hire hands at
exorbitant rates of \$200, and some more—they
will not make much, though but few, if any,
will loose.

The first of November is the proper time to
begin cutting boxes; and from then to the 1st
or 13th of March. One hand will cut from 70
to 90 and 100 boxes per day; an ordinary good
axeman will learn to cut good boxes, holding
one quart each, in from one to two weeks, and
whoever would make large yields of turpentine
to the task, or hand, *let him see well to having
his boxes well and carefully cut*—not too many
in a tree. A good sized pine will afford two; a
large pine three. To have the boxes *well and
properly cut*, is the *most important part* of the
whole process. One hand will tend with care
10,000 new boxes, and after the 1st year, from
10 to 12 and 14,000; he should “chip” boxes
once a week, until full, which will generally
take from 4 to 6 weeks, according to their age
and height. From new, “*virgin*” boxes, he
should make from 5 to 6 “dippings” in a year,
of 50 barrels each; he will have made the last
by the 1st of December, and will then have
time to take off the “*serape*” by the end of the
year. Serape is worth half price, and a task
will yield from 40 to 70 barrels. During Jan-
uary and February, he can cut more boxes if
necessary, or work in the plantation. A two
mule team or wagon will haul from 5 to 6 bar-
rels at a load. In North Carolina, they some-
times make and haul as much as 20 miles to
the river.

Should a planter take part of his men and
put them in turpentine making, plant largely
in corn, and not so much cotton, resting such
portion of his plantation as he cannot work
with his remaining hands and “trash gang,”
or putting it in pasture; he will then be en-
abled to make all his own bacon, and raise his
own mules and horses in the pastures; thus he
saves what money he makes from cotton and
turpentine, rests his plantation, and improves it,
instead of “clearing more land” every winter,
buying Kentucky horses and mules, and often
Kentucky corn and bacon. This is what may
be done, by taking part of his hands and put-
ting them to turpentine making in the adjoining
pine woods, instead of wearing out his
plantation in cotton, and when that is done,
“go to Texas.” This business has other advan-
tages over cotton, being a much surer crop;

supplying money throughout the spring, summer and fall, instead of but once a year. It is equally as healthy, and no set of hands have ever been known to willingly leave it and go back to cotton.

I could mention many who have *averaged* from 500 to \$700 per hand—and the prospects now are, that the next season, fine white Resin (which can only be made from “virgin dip,” that is from turpentine made from boxes which are not one year old) will bear a high price, and consequently the distillers can afford to pay high for virgin dip turpentine. Therefore now is the time to go to work and have the boxes cut ready for next season. Whether they are tended next season or the next, it matters not; as the day will come when these fine and unsurpassed trees will show their productiveness.

But I have already trespassed too long—much longer than I intended.

Yours,

A TURPENTINE MAKER.

Florida, Oct. 5, 1855.

Soil of the South.

Docking, or Amputation of the Tail of the Horse.

BY J. GAMGEE, V. S., LONDON.

MAYOR, the simplifier of human surgery, a title as grand as it is expressive, says in his preface: “We must deplore the patients of those practitioners who are satisfied with what exists, and who make it their duty to remain faithful to crudely exposed traditions, to learnedly introduced usages, and to habits scientifically erected into doctrines, for the exercise of our beautiful profession, and for greater good of suffering humanity.”

“*Simplex sigillum veri,*”

words as indelibly engraven on our minds as they are on the stone under which lie buried the ashes of their immortal author, Boerhaave, are those which sum up the doctrines to guide us in the practice of surgery. We have been born to venerate such an adage, and if it may seem that the subject chosen to promulgate our views be not a happy one, we trust to convince our readers that, enemies to barbarity and lovers of progress, we are Mayor's disciples, and pilgrims to Boerhaave's shrine.

The consultation of most veterinary works, English or Continental, and the practice we

have seen adopted, *here and abroad*, to cut horses' tails off, have afforded us abundant and undeniable proof that “it never consisted of more than the cutting off a portion of the stump with brute force, and the cruel application afterwards of a hot iron to the small artery of the tail.”

My father, Mr. Joseph Gamgee, who, for the last thirty years, has been in the habit of docking horses, here or in Italy, has learned by his long experience that the best mode of performing the operation is as follows:

A groom walks up to the horse's head, standing in his stall—for it is best not to disturb the animal—whilst the tail is prepared. This preparation is merely the separation with the tooth of a comb, or a probe, or simply with the fingers, of the hairs at the part where the tail is to be docked. The line of demarcation, by the separation of hairs, is then made perfectly distinct by the latter being properly tied upwards and backwards. The groom then holds up the near fore-leg, and an assistant holds the tail straight out behind, and with a *methodical* closure of a *sharp* docking-iron, the horse loses the end of his tail without perceiving it; the only movement generally effected is that of bending his back and momentarily shrinking. Never will a horse attempt to kick. His foot being now let down to the ground *he has to suffer no more pain*, the ligature which has fixed the hairs is undone, they are allowed to fall in their natural position and then tied together *below* the stump, rather closely up to it, but not over it, and drawn as tightly as will admit of its not slipping off unless pulled away. The morning after the operation the tail is loosened, the clot, or eschar on its cut surface, is not looked at or interfered with, the outer hairs are carefully combed out, and the drops of blood which have dried on them cleared away, and the horse is ready to go to his ordinary work.

We have a splendid lithograph in our portfolio, which strikingly depicts the barbarity and danger attending the use of the actual cautery in this operation. With blinds over the horse's eyes, a side line on his leg, a stout farrier's twitch on his nose, and a halter on his head, the sensible and frightened animal is pulling back, excited and furious, nearly sitting on his haunches, whilst the *red hot ring of iron* is being applied to the raw stump, previously

powdered over with resin. The smoke and odorous fumes are blinding the operator, who is in as awkward a fix as the poor horse himself. The print we allude to, although a masterpiece, but faintly represents the reality; and, as I was one day mentioning my father's practice to a veterinary surgeon, he exclaimed, "Ours is certainly dangerous work, and with the best care assistants or operator stands a chance to have their brains knocked out." I must mention that this was pre-eminently a practical man, and all practical men, here or abroad, have until now seared in docking; at least so far as we have learned, with one exception. And it is also a practical, as well as scientific man, for whom we have the greatest reverence, that said he had been in the habit of tying *over* the stump, and securing some tow between the hairs, but the practice was not found to answer in all cases. My father has often told me that he has often heard of persons tying *over* the stump, and thus inducing gangrene of one or more joints of the tail, for the pressure requisite to stop the coccygeal arteries in this way is considerable; whereas, when the hairs are tied *below*, it is the *natural hæmostatic*, consisting firstly in retraction of the and formation of a *temporary clot*, and secondly of a *temporary plug*, that comes into operation.

We have seen tetanus resulting from docking by the usual method, and heard of several cases of sloughing away of several of the coccygeal bones. We are well aware that a simple prick may cause tetanus, but it is rather strange that to my father such accidents are unknown, because the healing by granulation, under a natural eschar must be more in order than the *separation* of what has suffered by the hot iron, and *reparation* by exuded plastic lymph.

If simplicity is the undeniable seal of truth and humanity to be held in view by all operating surgeons, then there is no doubt that a clean cut is no severe operation, and tying of hair unassociated with difficulty or sensation. Some persons may say it is most humane to leave tails as they are; so it is, but men will have their horses docked, because in the sight of the world a horse with three inches taken off the end of his tail carries it better, and it looks lighter. We have heard horsemen of all kinds repeatedly say, "that horse will be all

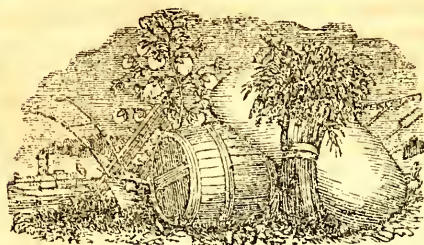
the better for having a little of his tail off," and we could not but agree with them.

But, lastly, some diseases may necessitate amputation of the tail. We admit this is extremely rare, but we have had to do it ourselves, and not only in the horse, but have seen it resorted to for a peculiar disease of the coccygeal bones in cattle. In the ox we are aware that nothing can answer better than the actual cautery, and as the operation is as rare as amputation of one of his extremities, we think it of little importance; but in the horse, had it to be performed only once in a practitioner's lifetime, the simplest and best mode should be adopted; just as if a veterinary surgeon were called upon to tie the carotid or the femoral artery, or to perform the Cæsarian operation, he should be expected to do it as a man of science, as a surgeon, and not empirically, as in the days of yore.—*London Veterinarian*.

USE OF SALT IN COOKING VEGETABLES.—Here is something everybody ought to have known long ago, and that everybody should now read and remember:

If one portion of vegetables be boiled in pure distilled or rain water, and another in water to which a little salt has been added, a decided difference is perceptible in the tenderness of the two. Vegetables boiled in pure water are vastly inferior. This inferiority may go so far, in the case of onions, that they are almost entirely destitute of either taste or odor, though when cooked in salted water, in addition to the pleasant salt taste, have a peculiar sweetness and a strong aroma. They also contain more soluble matter than when cooked in pure water. Water which contains 1-420th of its weight of salt is far better for cooking vegetables than pure water, because the salt hinders the solution and evaporation of the soluble and flavoring principles of the vegetables.—*Scientific American*.

VALUABLE RECIPE.—MR. A. BRONSON, of Meadville, Pa., says, from fifteen years' experience, he finds that Indian meal poultice, covered over with young hyson tea, softened with hot water, and laid over burns or frozen flesh, as hot as can be borne, will relieve the pain in five minutes. If blisters have not arisen before, they will not after it is put on, and that one poultice is generally sufficient to effect a cure.



The Carolina Cultivator.

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Announcement.

We take pleasure in stating that we have made an arrangement with B. S. HEDRICK, Esq., Professor of Agricultural Chemistry in the University of North Carolina, in virtue of which he will soon enter upon the editorial duties connected with this paper. Prof. Hedrick's services in that capacity will commence with the February number. His position before the public is already such as to render a formal introduction unnecessary. It is enough for us and our readers, that his acquirements and talents have secured for him the high appointment he holds in the University of the State, and that he enjoys the confidence of its Board of Trustees and Faculty. As a gentleman of acknowledged talents, and great devotion to the cause of agricultural science, we cannot doubt that his name and his contributions will prove a valuable accession to the merits of the Carolina Cultivator. That he will justify the favorable pre-possessions of our readers will be confidently anticipated by all who know him.

To Our Friends.

We have already enlisted quite an army of friends to our present enterprise, and wish we could tender to each, personally, our thanks for their encouragement. We do the best we can, by endeavoring to send them every month a copy, each, of the CAROLINA CULTIVATOR, handsomely printed, and filled with the best matter we can find in a large list of agricultural exchanges. We beg leave however, in the present number, to mingle a little suggestion with our acknowledgments. We wish to reason a while with our friends in regard to the undertaking in which we are engaged, and remind them of one or two facts which may not have been permanently impressed upon their memory.

The Carolina Cultivator is published for *one dollar* a year, for a single copy, with a liberal reduction to persons taking several copies. It requires a very large subscription list to support such a paper. We have already mustered a large body of subscribers on our books, but we need many more to enable us to realize the proper reward of our exertions. The price is fixed at one dollar, on the assumption that a liberal man, receiving such an amount of valuable reading, annually, for so small a sum, will exert his influence for the enlistment of others. We take it for granted that our friends will speak of the Cultivator to their neighbors, and exhibit it on suitable occasions in the social circle. In this way it becomes possible to sustain such a paper at such a price, and in this way alone. It is the same principle which justifies the reduction of fare on our public conveyances, when the spirit of travel is general along the line. We would therefore respectfully request our friends in the various counties of the State, and throughout the country, to remember the Cultivator in the social season upon which they have now entered. Winter is a time eminently favorable for such exertions. The farmers are apt to meet together at sales and hirings, and to spend much time in social intercourse. Let our friends only remember on such occasions to recommend the Cultivator, and we shall soon see the effect of their efforts in our growing list of subscribers.

We have another suggestion to make, of less direct importance to ourselves, but more to our

scribers. We aim, as is well known, to make our paper, not only scientific and entertaining, but practical and useful. To this end it is highly important that the practical men of the State should contribute freely and frequently to its pages. We must therefore earnestly reiterate the request, which has been several times made before, that the farmers and planters of our State shall assist us in this enterprise, by sending us in brief communications the results of their practical experience. Let not false modesty or a spirit of indifference induce them to withhold this slight evidence of their interest in agricultural improvement. Were it only for our own benefit, we would not be so urgent, but we feel assured that there is nothing so much needed in our Southern agriculture, as a free intercommunication of experience and reflection by the cultivators of the soil.

Chinese Agriculture.

The oldest countries in the world are Egypt and China, and in both of them the art of agriculture is pursued to its highest cultivation—at least we may say that there is no portion of the world where the industry of man has exhibited such wonderful results in the tillage of the earth. Much may be learned by more civilized nations from the husbandry of the Chinese especially, whose immense population has been sustained for ages from a soil which grows rich under perpetual cultivation. The secret of their success is by no means new or profound. It consists in highly manuring every foot of soil. We are informed by Bayard Taylor, in his interesting book on India, China, and Japan, that the alluvial soil around Shanghai is constantly redolent of the most repulsive odors, and that vehicles are always passing out of the city filled with the most noisome and efficacious manures. The whole country is cultivated like a garden, and not a pound of material that can add to its fertility is suffered to be lost. Such is the lesson taught us Americans by the antiquated Chinese. Strange truth, that the most progressive and enterprising of all Christian nations, should be so far behind the unsociable and besotted heathen of Eastern Asia, in the simplest and most important of all the arts! We ought to feel the point of such a comparison, and seek to exhibit before the world a less humiliating contrast.

Vol. I.—No. 11.—B.

BILLS.—We sent out a number of bills in our last number, to those subscribers who had not paid for the current volume of the CULTIVATOR. To those who have so promptly responded, we are very thankful, and we hope all who have not forwarded the amount due, will do so at once.

Exchanges.

The December number of the ECLECTIC MAGAZINE is before us. It is embellished with an engraved likeness of the celebrated Horace Walpole. The articles are numerous and no doubt well selected. Several of those at which we have glanced are quite interesting.

The SOUTHERN LITERARY MESSENGER, has also been received, and we are pleased to observe that it is to be continued for at least another year. We would be deeply grieved and mortified, if this highly valuable Southern periodical should be abandoned for want of support. Let a general effort be made to save it from the usual fate of Southern literary papers. The Messenger is to be changed in form, and enlarged in the number of its pages. The present number contains several excellent articles.

ARTHUR'S HOME MAGAZINE for the month of January is on our table, with its wonted variety of short, and useful selections, and pure contributions.

NEW YORK MUSICAL REVIEW AND GAZETTE.—This is the title of a Musical Periodical, published every fortnight by Mason Brothers', 23 Park Row, New York, at the very low price of One Dollar per annum. Each number contains 4 pages of excellent music, which makes *one hundred and four* pages of music during the year, which alone is worth several times the price of the periodical. We cannot too strongly recommend this work to our readers. It suits all classes, from the person just beginning to learn to sing, or play on instruments, to the professed musician. We particularly recommend it to all members of choirs.

New Books.

THE AMERICAN SHORT HORN HERD BOOK, vol. 2. By Lewis F. Allen, Buffalo, N. Y.

We have received a copy of this handsome book by mail, according to previous promise, the compiler's advertisement having been duly published in this paper. It is a large octavo of 608 pages, handsomely printed and bound, and

filled with pedigrees of American Short Horn Cattle, accompanied in many cases with beautiful engraved portraits of them. It also contains a valuable introduction on the subject. The work should be liberally patronized. Address, Lewis F. Allen, Black Rock P. O. N. Y.

CHURCH MUSIC, with selections from the ordinary occasions of Public and Social Worship, from the *Psalms and Hymns of the Presbyterian Church in the United States of America*, adopted and recommended by St. Peter's Church, Rochester. Published by E. Darrow & Brother, Rochester, N. Y.

This book is designed to be used for congregational singing, in connection with the Psalm Book "approved and authorized by the General Assembly of the Presbyterian Church in the United States of America." It is also designed for social worship. It contains all the old and familiar church tunes, and from the examination we have given it we think it well adapted to the purpose designed. We are indebted to Mr. H. D. Turner for a copy of the work. It may be obtained at Mr. Turner's store.

Communications.

For the Carolina Cultivator.

On the Accumulation, Preparation and Application of Stock-yard and Stable Manure.

(Concluded.)

The manure should be guarded against the direct influence of rains, by being kept in compact heaps so as to expose as little surface as possible. A further precaution might be used by removing the manure as soon as it is in fit condition to the fields, for which it destined, and there spreading it; this would check any remaining disposition to ferment, and the rains would only carry the ammonia into the soil, with which it would combine, and thus all danger, to any considerable extent would be avoided. If manure is suffered to undergo complete decomposition, there will be a great saving in hauling and spreading, but a great loss of some of its most valuable ingredients. If proper precautions are used to prevent the escape of ammonia, perhaps upon the whole it is most advantageous to permit it to undergo partial decomposition before its removal to the fields

for which it is intended. Ammonia readily combines with carbonic acid, forming a volatile compound, and is itself, while in a gaseous form, with all its volatile compounds, extremely soluble in water, and hence every particle of water evaporating from a dung heap will carry with it ammonia and carbonic acid unless they are united in a salt which is not volatile. Alumina or clay exercises an indirect influence on vegetation, by its power of attracting and retaining ammonia; a part only of the carbonate of ammonia which is conveyed by rain to the soil, is received by plants because a certain part is volatilized with the vapor of water. But if the soil contains a due proportion of gypsum, the carbonate of ammonia held by the rain water and that which is carried into the soil, by rains falling on putrescent manures, is decomposed by the gypsum, soluble sulphate of ammonia and carbonate of lime are formed, and this salt of ammonia not being volatile is retained in the soil. All the gypsum gradually disappears, but its action on the carbonate of ammonia continues as long as a trace of it exists. It will be observed from this reasoning of Liebig that the ammonia which the soil receives from the decomposition of long manure, is also liable to sustain a loss by combining with water and passing off in the form of vapor. But, as in this case, the progress of fermentation is very slow, the carbonate of ammonia will have more time to combine with the soil and the roots of plants are constantly absorbing it. During slow fermentation there is probably but little loss of carbonate of ammonia, even when gypsum is not present; and when present none at all. So far as the products of the soil can be left on the ground, that will be the most economical application of manure, the labor of transporting and applying, and the loss by evaporation will be saved. Thus it will be more advantageous to leave upon the ground as much of the stubble of wheat, &c., as is consistent with economy, and the uses to which these substances may be applied. Of course, a great regard must be had to a variety of circumstances, as the distance these same substances when converted into manure would be hauled before application, the number of stock, &c., and the benefit they would derive if this stubble were finely cut up and passed through their bodies. A great gain is on the other hand to be derived from the protection the earth receives

from the too ardent glare of the sun, by being "mulched" as it is called, and on the other hand some consideration is due to the fact, that fields thus protected are the chosen harbors and nests of various insects, which lie in wait until the genial spring calls them forth to their work of destruction.

All these substances will undergo slow fermentation, and if not washed away will yield much carbonate of ammonia and some potash to the earth. The ammonia evolved from manure is imbibed by the soil, either in solution or in the gaseous form, and plants thus receive a larger proportion of nitrogen than is supplied by the atmosphere. Indian corn as well as other crops, is sometimes fed off the field by stock, and it is obvious that by this mode the whole product is restored to the soil, and the land must necessarily be enriched in proportion to the quantity of nourishing ingredients, which the growing crop received from the atmosphere, with such abatement only as will equal the loss of ammonia by evaporation. Liebig states that urine, such as that with which the solid excrements are mingled, contains the greatest part of its ammonia in the shape of salts, which have completely lost their volatility; when presented in this condition not the smallest portion is lost to plants; it is all dissolved by water and imbibed by their roots.

The dung of animals is the oldest, best known and most extensively used of any species of manure; it is spoken of in the Bible as being in common use, both for fertilizing the soil and also as fuel, and is also mentioned by all the early Greek and Roman writers on agriculture.

Horse Manure.—Although the horse feeds exclusively on vegetable food, there is a great deal of difference between the manure produced from feeding him on the succulent grass of the pasture and when confined to the dry hay and nutritive grain of the stable. It is much hotter in its nature than that of the cow, heats sooner and evolves more ammonia, not merely because it contains less water, but because it is generally richer in those organic compounds of which nitrogen forms a part. Even when their food is the same the dung of the horse will be much richer than that of the cow, because of the greater proportion of the food of the latter, which is discharged in the large quantity of urine it is in the habit of voiding. It begins to heat and ferment in a short time, and accor-

ding to some authors, loses nearly half its weight in three weeks. On account of its rapid fermentation and consequent loss of volatile matter, it should be mixed as soon as possible with charcoal, peat, saw-dust or earth, rich in vegetable matter, and be sprinkled with gypsum, dilute sulphuric acid, or copperas. For the same reason it ought to be spread and ploughed into the soil before any fermentation takes place, unless mixed to form composts; from its tendency to ferment and develop heat it is admirably adapted to all composts. According to Boussingault's analysis, fresh horse dung in a dry state, contains 2.7-10 per cent. of nitrogen; when fermented it contains only 1 per cent. of nitrogen, and loses nearly 9-10 of its weight. This gives some idea of the waste that attends exposure; 73 parts of this manure are considered equal to 100 parts of farm-yard manure. In exposure it heats and suffers loss by fermentation; hence it is proper early to remove it from the stable and mix it with other materials by which the volatile substances may be arrested; the colder and wetter manure of the pig will answer well for this purpose, or soil rich in vegetable matter, as peat, sawdust, charcoal, &c., or if a chemical agent be preferred, moistened gypsum may be sprinkled among it or diluted sulphuric acid. The warmth of this manure admirably fits it for bringing other substances into fermentation; with peat, swamp or pond muck, saw-dust, spent saw-bark, weeds, leaves, &c., it forms an excellent compost for most soils, and to those containing much inert vegetable matter, it is applied with great advantage. Great care should be observed that it be not spoiled by fire fanging or burnt in the heaps, before it is used, for when so heated as to give it a white appearance most of its value is gone. It is difficult to give it age without mixing it with other substances, when it will be suitable for land that is neither too light nor too stiff, and if buried in very cold moist land as it comes from the stable unmixed, it has been remarked that the crop succeeded better, than when applied in a state of fermentation. In order to prevent fermentation, it is well to pour over the heap occasionally soap-suds, brine, urine, &c., which will check fermentation, and add other valuable qualities.

Cow Manure ferments more slowly than that of the horse and sheep, nor does it give off much ammoniacal vapor; hence it

acts more slowly, though for a longer period. The slowness of fermentation arises partly from the small quantity of nitrogen and partly from the fact that the food of the cow is less perfectly masticated than that of the horse. By exposure to the air it undergoes a sensible loss, amounting to nearly 1-5. Although the comparatively slow fermentation of cow-dung fits it better, for the treading among the straw in the open farm yards, the serious loss which it ultimately undergoes will satisfy any economist that the more effectually he can keep it covered up or the sooner he can gather the mixed dung and straw into heaps, the greater will be the proportion of its valuable properties which he will be able to retain. Fat cattle yield better manure than lean ones, or cows in milk; in the former the phosphates go to nourish and build up the horns and bones while in milch kine they pass into the milk.

Hog Manure is very rich but is characterized by an extremely unpleasant odor, which it communicates to those root crops on which it may be used; it is colder and less inclined to ferment than that of the cow and should be combined into composts. Feeding as these animals do partly on vegetable and partly on animal food, it is much richer than that of any animal which feeds on vegetables only. It is of a cold saponaceous substance, so that among the poor in some countries it is used as soap. Boussingault estimates that 63 1-2 parts are equal to 100 of farm-yard manure; it is excellent for hemp, hops, beans, corn, &c., but it is best to employ it as compost for grain; no other method is better, for it does not ferment and mellow so well in the earth when used alone, as when mixed with the dung of cattle and horses, and it is so rich and stimulating that it is difficult to spread it thin enough by itself. No manure yields its virtues so readily or loses them so soon by improper management; the time of applying it to the land should be carefully regarded for a slight rain will wash it off entirely, while a dry windy day will evaporate its efficacy. Being a strong manure the best purpose is served by mixing it with a large proportion of peat, mould, swamp mud, weeds, leaves or straw and other matters, which will easily decompose. It is almost incredible how large a quantity of excellent manure can be obtained by supplying the pig yard with an abundance of these substances to be worked over and incorporated by the

swine. Land is sometimes sown with clover and peas, with the double object of feeding them off in a green state on the field by the swine which are allowed to run loose, and of enriching the soil by their droppings.

Sheep Manure is richer and more fermentable than that of the cow, and is most beneficial in soils containing much vegetable matter, which absorb the volatile matters that would otherwise pass off during fermentation. A sub-soil abounding in clay, loam, mould or decayed vegetable matter has the power of absorbing and retaining everything which can serve as manure; this action is not at all the same with filtration, as a sub-soil composed of sand and gravel does not possess this property, but allows most of the fertilizing materials to enter the earth beyond the reach of plants.

The manure of pigeons is valuable for flax crops, for which it is held in high esteem in Europe. Like most others it loses much of its value if allowed to ferment without the mixture necessary to retain its volatile elements; the principal advantage in its use, of course depending on the amount of ammonia and phosphates it may contain. The manure of hens and other domestic fowls, though much too valuable for gardening purposes to be neglected, is not so much so as that of pigeons.

The urine of men and animals is one of the most valuable and most neglected of manures—that of the cow and hog contains more solid, soluble matter than that of any other domestic animal. In its recent state, it is generally unfavorable to vegetation, and most beneficial after fermentation has fairly commenced; its efficacy is due to the large quantity of urea, ammonia, phosphates, and consequently nitrogen. Decomposition is attended with a diminution of urea and an increase of ammonia; it should be fermented in tight vessels to prevent the escape of volatile matters; it is proper to use gypsum, sulphate of iron or diluted sulphuric acid to fix the ammonia; vegetable mould is equally effective and more economical. It is stated that in Sweden, so highly is the urine of their cows valued that they are trained to deposit it in vessels set for the purpose.

Of the other refuse matters generally found near our plantations.—Tanbark decays slowly and is best fermented by mixing it with lime or farm-yard manure as a compost. Soot has

some value. Cotton seed and oil cakes when they can be used for manure should be sowed and ploughed in or heaped with lime. Charcoal is an absorbent used to destroy offensive odors; its operation on the soil is not so direct as that of some other manures; that is, it is not so useful on account of any element which it furnishes to plants, as by its intermediate office of absorbing and retaining those volatile matters which plants require; it is beneficial as a top dressing, and in composts; its antiseptic qualities are very beneficial to young and tender plants, by keeping the soil free of putrefying substances, which would otherwise destroy the spongioles and prevent their growth. Cider cake is valuable when its acidity is neutralized by composting with lime. Peat is beneficial to soils deficient in organic matter; it decomposes slowly, if sour or applied alone to a wet soil containing little lime; its action when properly decomposed and prepared is the same as that of other vegetable substances; it contains more or less mineral and gaseous substances, which have their own peculiar action, but do not affect its character as a vegetable manure. On account of its slowness in decay it should be mixed with lime, gypsum, wood ashes, or some matter which decomposes rapidly, as farm-yard manure.

Swamp muck and humus are similar in their properties to peat. One of the best methods of using peat or swamp muck, is to make it up into pies as they are called, containing one part of dung, and from three to six parts of peat, green vegetables, &c., mixed with a little lime or ashes. This, if carefully tended and turned when the fermentation gets too high, in the course of a week or two turns out a free, fine black mass which can be used weight for weight as farm yard manure, and in a course of cropping fully sustains a comparison. This preparation is peculiarly conducive to the growth of clover and the soil acquires a predisposing tendency to promote such grasses, so as to prevent the introduction afterwards of coarse or sour herbage. The addition of lime is not absolutely necessary, but when it is replaced by alkaline salts the preparation is of much greater utility, since the peat is rendered completely soluble. During a dry season the prudent farmer will industriously remove all the muck from evaporated swamps and compost it with dung or urine, night soil, soap suds or other putrescent matter; this compost is excellent and suitable

for almost any variety of soil, though best for sandy and light ones.

The value of all animal manures depends much upon a variety of circumstances, viz:—upon the length of time and the manner in which they have been kept, and upon the food, age, condition and amount of labor, of the animals which produce them; they are usually exceedingly active but of short duration in their effect. Among vegetable substances, those most valuable as food are also the best for manure, and the cost of the article alone determines its application to the earth or for our own use. The continual use of vegetable manures will not bring the land up to the highest degree of fertility; they must be aided by animal manures, which by means of the azote they contain exercise upon the soil of a peculiar influence. If the farmer contents himself with feeding his cattle on substances of difficult decomposition, and containing but little nourishment (as straw,) the food will pass through their systems with only a slight change, and without being animalized in consequence of the weakness brought about by such a diet. *El. Ag.—Skinner.*

Manures fail in producing the desired effect in proportion as draining is neglected; applied to wet soils they are soon dissolved or wasted. It is a well settled principle that the soils to which they are applied should be prepared for their reception by being well pulverized. By this means the manure can be more intimately incorporated with the soil and more accurately proportioned with most benefit to the soil and crop. A distinguished farmer of our own country has said "that the agriculturist who expects good crops after neglecting his manure, is equally a fanatic with the religionist, who expects to get to Heaven after neglecting his morals." Besides the dissipation of gaseous matter when fermentation is pushed to the extreme, there is a great disadvantage in the loss of heat, which if excited in the soil is useful in promoting the germination of seed, and assisting the plant in the first stage of its growth, when it is most feeble and liable to disease. This process is peculiarly favorable to wheat crops in preserving a genial temperature beneath the surface late in autumn and during winter. A slight fermentation is useful, as by it a disposition is produced in the woody fibre to decay and dissolve; too great a degree is highly inju-

rious, and none at all is better than too much. It would appear therefore that theory requires the application of manure to the soil as soon as fermentation begins, so that it may exert its full action and lose none of its nutritive powers. In fermentation beneath the soil the fluid matter produced is instantly absorbed by the earth or the organs of the plants, and consequently more benefit is experienced than from applying manure, which has gone through the process, and all of whose principles have entered into new combinations. The pernicious effluvia disengaged in putrefaction seem to demand the burying of offensive substances in the soil where they are fitted to become the food of vegetables. The fermentation and putrefaction of organized substances in the free atmosphere are noxious processes; beneath the ground they are undoubtedly salutary. A late writer emphatically says, "By the litter of Indian corn and of small grain, and by penning cattle with an inferior degree of skill, I venture to affirm that in ten years, a farm may be made to double its products, and in twenty to quadruple them."

Before closing this essay it would be well perhaps to say a few words of the the manner in which manures act through the earth on plants, so that having once ascertained the general principle we may apply it in the best way. In broad terms then, manures are those substances which when applied to a soil tend to promote the growth and perfection of plants, by supplying them with such nutriment as may be deficient in the soil and may be necessary for bringing crops to perfection. It has long been known that plants, besides the organic matter of which their bulk is composed, contain a variable per cent. of mineral matter, that remains as an ash when the plant is burned. The constant recurrence of these matters in plants has convinced all intelligent observers that, "The theory of manures consists in applying to the soil, those inorganic constituents which are contained in the ashes of the plants intended to be cultivated, and that nitrogen or nitrogenous substances in the form of nitrates or ammonia, or its salts, are indispensable to insure permanent fertility and perfect growth." Browne's Field Book, p. 388. The ashes of all crops always contain these ingredients, silica, phosphoric acid, sulphuric acid, lime, magnesia, oxide of iron, potash, soda and chlorine, and addition they contain carbonic acid, united with

bases sometimes the oxide of manganese, and according to some alumina. The opinion that these substances are the ingredients of a fertile soil, and that they in conjunction with others, which exist more or less abundantly in the air we breathe, constitute the food of plants is not a mere theory, but an actual law. Plants must therefore obtain from the soil, or the manures applied to it as well as from the air, a certain number of elements, if they are to be developed and thrive. The volatile parts of plants thrown off by combustion or decomposition, consist of carbon, hydrogen, oxygen, nitrogen, phosphorus and water. The carbon is probably derived from the atmosphere, which always contains carbonic acid; from water, which reaches the plant in the form of rain, dew, &c.; from the seed, which contains carbon in itself; and lastly, from the soil and manure, in the form of carbonate of lime, magnesia and the alkalies, and in that of decaying vegetable and animal matter, as well as free carbonic acid. The hydrogen is probably derived from the atmosphere, from water, from the seed itself, and from the soil and manure. The oxygen and nitrogen from the same sources.

"In order to make a judicious and economical use of manures three things are required to be known: 1st, the amount of mineral or inorganic ingredients abstracted from the air by an average crop of the plant to be grown. 2nd, an accurate analysis of the soil and subsoil taken from the several parts of the field, and 3rd, the amount of fertilizing matter contained in a given quantity of the manures to be employed, and the quantity that experience has pointed out as producing the most satisfactory results." Water in the great solvent by which vegetables are enabled to absorb the substances upon which they feed. Hence during a very dry season the crops suffer, not because Nature has not supplied the appropriate aliment necessary for their sustenance; but because the solvent is not present in sufficient abundance to enable them to appropriate the food provided for their use. If rain is superabundant the solvent may exist in too large a proportion, and thereby weaken the aliment. Organic matter when reduced to its primary elements, exists in a liquid or gaseous state and will readily combine with water or the atmosphere, and is thus absorbed by all vegetables through their rootlets and leaves. The produc-

tiveness of a soil depends upon the elements of its composition; if those abound which afford the food necessary for the particular crop which is intended to be grown, it may be expected that the crop will flourish and yield abundantly, otherwise not. Liebig in various parts of his able work on Organic Chemistry, has shown that plants derive from the air by the absorbing power of their leaves a large and regular supply of carbonic acid; that during the summer plants derive their carbon exclusively from that source. Since they also possess the power of decomposing water, we find here the sources whence are derived three of the principal elements which assist in furnishing food for growing crops. Nitrogen is essential to the vigorous and healthy growth of plants; this element exists in large quantity in all animal substances, and also to a considerable extent in decaying vegetables, but much of it escapes as ammonia during decomposition. It was difficult until the great mind of Liebig shed such a brilliant light on organic chemistry, to account for the manner in which this indispensable element to fertility was replenished, but he has clearly shown that ammonia, consisting of hydrogen and nitrogen, is combined in small quantities with rain water and snow, and thence the loss of nitrogen sustained by the removal of the crops from the soil on which they grow, is in a limited degree restored. Nitrogen is also supplied to crops from the atmosphere; but notwithstanding this, the utmost care should be used to keep our lands well supplied with it by taking nothing from them but what is necessary, by restoring everything possible, and by cultivating clover and other ameliorating crops, which take but little from the soil, while they add to it all the fertilizing ingredients, they derive from the atmosphere. Next to oxygen, hydrogen, carbon and nitrogen, the alkalis, potash and soda, constitute the most important ingredients in the food of plants; they are capable of combining with a great variety of substances, and in various states of combination form an almost indispensable food for nearly all kinds of plants.

Animal and vegetable matters are the enriching substances, but unlike the earths are not of a permanent nature, because the growing crops constantly extract their juices from the soil for their own nourishment.—The earth serves as a support for the growing

plants, a place for them to stand in and as a receptacle for their food, in a precisely similar manner as the stomach of animals prepares and digests their food and fits it to be taken up by the lacteals, and thus transported and transferred through all parts of the body to be converted to its appropriate use, of strengthening and vivifying the entire system; the rootlets or spongioles, those long hair-like fibres springing from all parts of the root and running in every direction in search of food, answer the same purpose in a plant. A curious experiment in proof of this is recorded: large bone was buried at some distance from a grape vine, and in a place where at the time there were none of these fibres; some time afterwards, on being dug up it was found completely covered by them, which had worked their way into its solid substance and sucked out its invigorating juices. When a sound seed is planted the moisture of the earth causes it to swell; the pellicle which surrounds it is weakened and the embryo bursts through. Vegetation then proceeds in two opposite directions, forming the radicle or little root below and the plumule or little tuft above; that a seed may develop itself and form a plant, it is not only necessary that it should be placed in the soil, but that other favorable circumstances should surround it; the soil must contain humus, (the fertilizing product of decomposed animals and vegetables,) and the mineral substances required for the nutrition of the plant, and there must also be a concurrence of certain atmospheric influences, heat, air, moisture and light. The success of germination depends upon a union of heat and moisture; if one or the other of these agents should preponderate for any length of time, the plant would suffer and finally perish. Air is indispensable on account of the combination of the oxygen it contains with the carbon enclosed in the seed; it also acts by its weight, pressing upon the pores and preventing the escape of the sap and blood from their vessels. Without light, germination may take place, but no plant can flourish or at best will be feeble and soon perish. The unerring pencil of the Sun in the hand of His Creator, paints the rose's blush and the violet's cerulean tinge, places the bloom on the luscious cheek of the peach, points with living light every blade of grass, and images his beauty and might in every tiny drop of dew. "The Heavens and the Earth are full of thy glory, O Lord!

and let everything that hath breath praise Thee.

The writer of these pages is abundantly conscious of the many faults of his production: he has labored to set forth those theories and principles which are based on the highest authority, and to state those facts only which are supported by the highest evidence. All the faults and errors he claims as his own, and he hopes they may be considered venial, all the good, and he flatters himself there may be much, belongs to those distinguished authors from whom he has so largely borrowed.

Raleigh, N. C., Sept. 854. O. O. O.

For the Carolina Cultivator.

MR. EDITOR:—As it is desirable for gardeners to know how long each kind of seed will retain its vitality, I send you the subjoined list from "Loudoun's Encyclopedia of Gardening."

Cabbage Tribe, four years.

Leguminous Culi & y Vegetables, one year.

Esculent Roots.—Beets ten years, Turnip four years, Carrot and Parsnip one year, Radish, Salsify and Scorzonera two years, Skirret four years.

Spinaceous Plants.—Spinage four years, Purslane two years, Orache and Herb patience one year.

Alliaceous Plants.—Onion, Garlick &c., two years.

Asparaginous Plants.—Asparagus 4 years, Seakale Artichoke three years, Cardoon and others two years.

Acetucious Plants in general, two years; Lettuce three years, Endive, Tarragon and Mustard four years, Burnet six years, Sorrel seven, and Celery ten years.

Pot Herbs in general, two years; Parsley and Cheevil six years, Dill and Fennell five, Marigold three years.

Sweet Herbs in general, two years; Rue and Rosemary three, and Hyssop six years.

Plants used in tarts, generally two years, Rhubarb one.

Herbaceous Fruits.—Cucumber, Melon, Pumpkin, Gourd ten years; Love Apple, (Tomato) Capsicum, (Pepper) tribe and Egg Plant, two years. [The last should not be trusted beyond one year.]

Annual, bi-ennial, and per-ennial flower seeds it is unsafe to trust beyond one year.

The seeds of all trees are best planted with-

in the year, as soon after maturity as practicable.

I add from the same work the time of germination of the seeds of the following plants:

Wheat and Millet, one day; Spinage, Mustard and Bean, (?) three days; Lettuce and Aniseed, four days; Cucumber, Cress and Melon, five days. [The last I think nearly twice as long.] Radish and Beet six days; Barley seven, Cabbage ten, Hyssop thirty, Parsley and Celery forty or fifty; Almond, Chesnut, Peach one year. [If sown in the fall they germinate the following spring.] Rose, Hawthorn and Filbert two years.

Miscellaneous.

Preparation for, and Culture of Indian Corn.

MESSRS. EDITORS:—As the season is at hand for the preparation of land for the culture of corn, I propose to give you my experience the past season in raising corn, with my present conviction of how I shall prepare for and cultivate my next crop. Believing, however, that neither mode is correct, but by perseverance and experience, I hope to improve in the art of corn making every year at least, at the same ratio that I have for the past five years. If all your readers would give their experience through your valuable paper, upon this subject, and every planter in the land would take the *Soil* and read the experience of others, and apply that portion that would apply to his own farm, we should hear no more of scarcity of corn or of fat hogs.

You well know, Mr. Editor, that I am indebted to agricultural papers for whatever success I have met with in planting, and the management of a plantation, and if I could get every *anti-book* old Farmer in the land to come and see my plantation, my fences, my ditches, my barn, cribs, stables, sheds, gin house and screw; my horses, my mules, my hogs, my cattle, my sheep, my poultry, my negroes, and negro houses, and above all, the products of my land, I would ensure many new subscribers, not only to the *Soil of the South*, but many other agricultural papers—but I am straying from my subject, and must return to it.

1st. It is necessary to have rich land, naturally so, or it must be made so by manuring. The land must be well cleared and well drained, either by open or blind ditches; I would prefer the latter. My own ditches are all open, then to be well fenced in. I mean by this a fence that will keep out all kinds of stock. I would observe that all the lands that I cultivate are rich creek bottom. I use large fine strong mules; I see that every part of the gearing is put on them in the proper manner, and suited to the plow; by a little attention and observation in this particular, my mules are never skinned or have sore shoulders and backs, and they are much easier kept in good condition.

I commence breaking up my lands, both for corn and cotton, as soon as I get through gathering my crop. For the purpose of breaking up my land, I use a square pointed scooter plow, thirteen inches long, on a common shovel plow stock. I make my strongest and best hands break up my land. I plow as deep as the mule can pull the plow and plow closely, and it breaks up the land thoroughly. I make every plowman plow his own land or bed, such land varying from twenty-five to thirty feet wide. I am only particular that the land shall be thoroughly broken up. I allow the land to lay in this condition until I wish to commence planting, not allowing any kind of stock to run on the land after it is broken. I am very particular about my seed corn. I send my most careful hand to my fields with a large basket, and make him select from no stalk that has less than two ears of corn upon it, and to take but the upper ear. He carries it to a convenient place, and as soon as he gathers as much as a load, I have it hauled home and put away carefully in the shuck. When I wish to commence planting, I have it shucked out and select the best and soundest corn for planting. I then have my rows run off four feet apart with a long scooter plow, and as deep as the mule can pull it. I have the seed corn deposited in this row, two grains in a place, and about two feet apart. I then cover it with a short scooter by running a furrow on each side, endeavoring to cover the corn from three to four inches deep. I usually commence planting corn the last week in February or first week in March; (but I at all times never commence planting until I am ready,) so as to commence bedding up and planting cotton by the first of April; as soon

as I get through planting cotton, I return with all my force to my corn, plowing my corn well with a scooter plow, as deep as a mule can pull it, and plowing out every row thoroughly. The hoe hands following behind the plows, thinning to a stand, and hoeing the corn nicely. When the corn is over this time, I return to the cotton and run around it with a winged sweep as soon as I get through with this operation. My plows return to the corn with winged sweeps, running about four times in each row, and a few of the weaker hands following behind pulling off the suckers. As soon as over the corn the second time, all hands again in the cotton field, plowing it out thoroughly, either with the winged or solid sweep, and thinning to a stand. I then return to the corn again, for the last time, with the sweep and the hoes, for the purpose of taking out all the bunches of grass and weeds that the sweep may leave. I usually plant cow peas at the second plowing; when I fail to do this, I sow peas at the last plowing. I was visited with a severe drought from the last of May to the 12th of July, and under these circumstances, what corn I have gathered on my bottoms has yielded about forty bushels of sound corn to the acre; I have yet about one hundred and twenty acres to gather, and I am of the belief, that if I had got a good season about the 10th of June, that my crop would have averaged sixty bushels to the acre; and I have a field of cotton that I think the yield an extraordinary one for this country; as soon as we finish picking, I will give you the result.

In preparing my land for the ensuing crop, I shall break up with the same kind of scooter, and run directly in the scooter furrow with a sub-soil plow, using two mules to the latter plow. Instead of drilling my corn as heretofore, I shall lay off my first rows four feet wide and cross them three feet, thus planting in hills, three by four feet, and allow two grains to stand in a hill. I shall plant the corn a "little deeper" under the level of the earth than heretofore, plowing the corn the wide way the first time; the narrow way and planting peas the second time—and laying by the wide way, hoeing the peas and cleaning the corn of all weeds and grass, and if I am blessed with good showers, I will invite you to come and see a corn crop the next season, and to enjoy some delicious fruits; and if you were not a son of Temperance, I would perhaps say some wine raised on the premises.

MUSCOGEE.

Modern Inventions

We know of no invention of modern times that deserves or is destined to occupy a higher niche in the temple of fame, than the discovery or invention of the Vegetable Epileptic Pills for curing Epilepsy, or Falling Fits; Spasms, Cramps, and all the various modifications of Nervous Disease. Dr. Seth S. Hance, of 108 Baltimore street, Baltimore, Md., the inventor, is certainly entitled to the best wishes of all the benevolent portion of mankind, who experience a pleasure by the alleviation of human suffering. When Dr. Hance first prepared these Pills, he intended them solely for Fits, Cramps and Spasms; but subsequent experience satisfactorily proved to him, that in addition to their remarkable sanative properties in this class of diseases, they exerted a perfect control over the entire nervous system. He was then induced to try them in cases of Neuralgia, Tic-Doloreux, Nervous Headache, Palpitation of the Heart, Incipient Paralysis, Hysteria, Muscular Debility, and a host of minor diseases, springing from a lack of nervous energy, in all of which his anticipation were crowned with the most sanguine success. Persons at a distance, by writing and sending a remittance to Dr. Hance, can have the medicine forwarded by mail to their post office address, he paying the postage. The prices are for a single box, \$2, two boxes, \$5, or \$24 per dozen. We have given his address above.

The Great Restorative.

Fever and Ague cured by Dr. McLane's Liver Pills.

Mr. Jonathan Hougham, of West Union, Park County, Illinois, writes to the proprietors that he had suffered greatly from a severe and protracted attack of Fever and Ague, and was completely restored to health by the use of the Liver Pills alone. These Pills unquestionably possess great tonic properties, and can be taken with decided advantage for many diseases requiring invigorating remedies; but the Liver Pills stand pre-eminent as a means of restoring a disorganized Liver to healthy action; hence the great celebrity they have attained. The numerous formidable diseases arising from a diseased Liver, which so long baffled the skill of the most eminent physicians of the United States, are now rendered easy of cure, thanks to the study and perseverance of the distin-

guished physician whose name this great medicine bears—a name which will descend to posterity as one deserving of gratitude. This invaluable medicine should always be kept within reach; and on the appearance of the earliest symptoms of diseased Liver, it can be safely and usefully administered.

Purchasers will be careful to ask for **Dr. McLane's Celebrated Liver Pills, manufactured by Fleming Bros. of Pittsburgh, Pa.** There are other Pills purporting to be the Liver Pills, now before the public. Dr. McLane's genuine Liver Pills, also his celebrated Vermifuge, can now be had at all respectable drug stores. **None genuine without the signature of FLEMING BROS.**

Dr. McLane's Vermifuge.

During a practice of more than twenty years, Dr. McLane had attended innumerable patients afflicted with every form of worm disease, and was induced to apply all the energies of his mind to the discovery of a vermifuge, or worm destroyer, certain in its effects; the result of his labors is the American Worm Specific, now before the public, which is perfectly safe, and may be given alike to children of the most tender age, or to the aged adult; it purges mildly and subdues fever, and destroys worms with invariable success. It is easy of administration, and as it does not contain mercury in any form whatever, no restrictions are necessary with regard to drinking cold water, nor is it capable of doing the least injury to the tenderest infant. An incredible number of worms have been expelled by this great vermifuge.

Purchasers will be careful to ask for **Dr. McLane's Celebrated Vermifuge, manufactured by Fleming Bros. of Pittsburgh, Pa.** All other Vermifuges in comparison are worthless. Dr. McLane's genuine Vermifuge, also his celebrated Liver Pills, can now be had at all respectable drug stores. **None genuine without the signature of FLEMING BROS.**

THE POETRY OF PHYSIC. Doses have always been associated in our minds with wry faces, and medicine has seemed from the days of childhood, another word for nausea and disgust. Its remedies were the worst part of sickness, and pain was not so hard to bear as the revolting portions we are compelled to swallow for its relief. Dr. Ayer's preparations herald another era. His *Cherry Pectoral* is like honey on the tongue, and healing balm on the stomach. His Pills? Try them—they are sweet morsels to the taste, and glide sugar-shod over the palate, but their energy although wrapped up, is there, and strikes with telling force to the very foundations of disease.—*Cincinnati Citizen, O.*

Table of Contents.

Announcement.....	352
Bills.....	353
Bucombe Agricultural Fair.....	342
Climate.....	343
Chinese Agriculture.....	353
Dr. McLaine's Vermifuge.....	362
Davie Agricultural Fair.....	341
Docking, or Amputation of the tail of the Horse.....	350
Exchanges.....	353
Modern Invention.....	362
New Books.....	353
On the Accumulation, repuration and Application of stock yard and Stable Manure.....	354
Preparation for, and culture of Indian Corn.....	360
Rowan Agricultural Fair.....	341
The Great Restorative.....	362
The Poetry of Physic.....	362
The Arabian Horse.....	344
The American Crab Apple.....	348
Turpentine Making.....	3 8
To our Friends.....	352
Union Agricultural Fair at Henderson.....	337
Under Drains.....	347
Use of Salt in Cooking Vegetables.....	3 1
Vitality of Seed.....	360
Valuable Recipe.....	351
What Farmer's Need.....	346

ADVERTISEMENT.

MASON BROTHERS, NEW YORK,
Have Just Published :

I.

The Letters of Madame De Sevigne

To her Daughter and Friends. Edited by Mrs. SARAH J. HALE, Author of "Northwood," "Woman's Record," etc. Being Vol. I of the Library of Standard Letters. 1 vol. 12mo., 438 pp. Price, \$1.25.

From the *Boston Traveller*, we make the following extract, which ably sets forth the excellencies of this valuable work :

"Madame De Sevigne, whose letters are here published, was one of those gifted ladies whose polished manners, and brilliant intellectual accomplishments, imparted such lustre to the Court of Louis the Fourteenth; and her letters—most of which are addressed to her daughter—not only give pictures which afford a perfect picture of the times, but are also distinguished by the easy gracefulness of their style, and the charming maternal tenderness which shines through all.

The Press generally, has bestowed unqualified praise upon this volume.

The *New York Tribune*, speaking of the letters, says: "Their lively pictures of French manners, and their trustworthy accounts of historical events, will always secure to them a large circle of intelligent readers." The *N.Y. Journal of Commerce* styles them "models of epistolary composition." The *Newburyport Union* calls the author, "one of the most fascinating of the whole letter-writing race." And the *Boston Post* says: "As a family book, this volume cannot but be welcome." "She invests," says the *New York Mirror*, "the most common-place particulars of life with a suggestiveness which startles the reader." And in another portion of his lengthy notice, the critic of the *Mirror* says her "letters are written in simple, easy periods, and are remarkable for that combination of wit, wisdom, and charity, which is so rare and so attractive."

The biographical sketch of Madame De Sevigne,

by Mrs. Hale, forms a most attractive portion of the book. A widow, youthful, gifted, beautiful, vivacious, and impassioned she devoted her life to her children and friends; and, amid the allurements of a corrupt court, sustained herself unblemished. The perusal of the life of this high-principled woman cannot but prove beneficial to all.

II.

The Elm Tree Tales;

Comprising Jennie Grigg, the Street Sweeper; Nannie Bates, the Huckster's Daughter; and Archibald Mackie, the Little Cripple. By F. IRENE BURGE SMITH. 1 vol., 12mo. Price, \$1.

"No book is better adapted for a Holiday Present than this."—*New York Dispatch*.

"There is a freshness, a vitality, and life-like character to these three tales, such as we have not met with for a long while in the best works of fiction which have been claiming our notice for the past few months."—*Boston Atlas*.

III.

Wager of Battle.

A Tale of Saxon Slavery in Sherwood Forrest. By HENRY W. HERBERT, Esq., Author of "Marmaduke Wyvill," "Henry VIII and his Six Wives," etc., etc.

"Herbert is the best living historical novelist."—*Boston Transcript*.

"The Wager of Battle' is the best of Herbert's works."—*N. Y. Dispatch*.

"Mr Herbert has more than sustained his reputation as a novelist in this truly fascinating romance."—*Philadelphia News*.

"Every one who is susceptible to the charms of romance will read it with intense interest."—*N. Y. Commercial Advertiser*.

"The present work is even richer in the elements of popular interest than Mr. Herbert's previous fictions, compositions, and will deservedly increase his reputation as a brilliant and vigorous novelist."—*N. Y. Tribune*.

Newbern Agricultural Warehouse.

WILLIAMS & OLIVER, & CO.,

GENERAL COMMISSION MERCHANTS, Newbern, N. C. Among our stock of Agricultural Implements may be found Ploughs, embracing some 40 different kinds.

Straw Cutters of all the most approved kinds, varying in price from 5 to 50 dollars a piece; Corn Shellers, from 7 to 60 dollars a piece; among which may be found Readings celebrated Sheller, capable of shelling and fanning at same operation 2000 bushels corn per day. Also, the verticle cylinder, double and single iron and wooden spout shellers.

Grain Fans from 15 to 24 dollars a piece, among which may be found the best Fans in use. Wheat Thrashers and Horse Powers complete, capable of threshing 300 bushels wheat per day. Cultivator's, Harrows, Horse Rakes, Horse Hoes, Improved Seythes and Cradles. Plough Castings of every variety; farmers Boilers and Cauldrons; Sausage Meat Cutters and Stuffers; Pure Peruvian and Mexican Guano; Chappells Fertilizer; Ground Plaster; Bone Dust; Prepared Guano, Poudrette, &c. &c.

Hoe & Co's Warrented Circular and other Saws; Patent Leather Banding; Best Bolting Cloth; Mill Machinery; Mill Stones; Water Wheels; Premium Georgia Cotton Gins, and Gin Gearing, &c., &c., all of which will be furnished on the most liberal terms by WILLIAMS, OLIVER & CO.

Newbern, January 1, 1856.

Strict attention given to the sale of all kinds of country produce.

Warrenton Female Collegiate Institute WARRENTON, N. C.

THE 30th session of this school will commence on the 3d of January next, prepared to give thorough instruction in all the branches of female education. Pupils received at any time. All charges from time of entrance.

Terms per Session :

Board, washing, lights and fuel in rooms,.....	\$60 00
English tuition,.....	12 50
Music on Piano, Guitar, Melodeon, with use of instrument, each,.....	23 00
Oil Painting,.....	15 00
Persons wishing further information, will please apply to GRAVES, WILCOX & CO. December, 1855.	

GREENSBOROUGH MUTUAL INSURANCE Company. The cost of Insurance on the Mutual plan is but a small sum, compared with a joint stock company. This company being located in the Western part of the State, consequently much the larger portion of the risks are in the West, very many of which are in the country.

The Company is entirely free from debt : has made no assessments, and has a very large amount in cash and good bonds, and is therefore confidently recommended to the public.

At the last Annual Meeting the following Officers were elected for the ensuing year :—

JAMES SLOAN, President.
S. G. COFFIN, Vice President.
C. P. MENDENHALL, Attorney.
PETER ADAMS, Sect. & Treasurer.
W. H. CUMMING, General Agent.
PETER ADAMS, Secretary.
GEORGE T. COOKE, Agent at Raleigh.

January 1, 1856.

29—tf.

FINE FRUIT TREES.

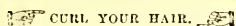
30,000 FRUIT TREES of the finest select kinds, native and foreign, are now ready for sale by **JOSHUA LINDLEY**, at New Garden, Guilford Co., N. C., and **OWEN LINDLEY**, at Cane Creek, Chatham Co., N. C., consisting of Apples, Peaches, Plums, Apricots, Nectarines and Cherries. Persons wanting Trees will please to direct their orders to Joshua Lindley, New Garden, or Owen Lindley, Cane Creek.

JOSHUA LINDLEY,
OWEN LINDLEY

2t

December, 1855.

RINGLETS! RINGLETS! RINGLETS!

 CURL YOUR HAIR.

AFTER MUCH STUDY, TOIL AND EXPENSE, I have discovered the secret of making the most straight, smooth and coarse-looking hair, either to CURL or WAVE, at the option of the individual, in the most graceful manner, for life; thus enabling persons greatly to improve their appearance. Only three applications of my preparation are necessary. The preparation, which is not only perfectly harmless to the skin and hair, but renders the latter permanently silky and glossy, does not cost more than *fifty cents*, and the materials of which it is composed can be bought anywhere. I will send the RECEIPT for making it, to any person who forwards me ONE DOLLAR, by mail, pre-paid. Address

PROFESSOR H. N. ROWLAND,

Practical and Analytical Chemist, Philada., Pa.
 The RECEIPT and one bottle of the PREPARATION, sent free by mail, for \$2. 10tf

CONSUMPTION SUCCESSFULLY TREATED BY INHALATION OF MEDICATED VAPORS!

BY JOHNSON STEWART ROSE, M. D.,

FELLOW of the Royal College of Physicians, and for years Senior Physician in the London Royal Infirmary for Diseases of the Lungs.

In this age of progress, medical science has contributed her full share to the general welfare, and that which shines resplendent, the brightest jewel in her diadem, is her last and greatest gift,

Medicated Vapor Inhalation,

In the treatment of Consumption and kindred affections. The most absurd notions, narrow-minded prejudice contemptible ignorance, and unblushing quackery, have long existed in the treatment of Consumption. Men of skill and reputation as physicians have prescribed nauseous compounds to be taken into the stomach, to cure disease of the lungs, while the brazen-faced quack held up his nostrum as the only star of hope for the consumptive—if only enough of it were swallowed. The stomach, where no disease exists, being the receptacle of all this, is soon rendered unfit to perform its functions, and the health thus materially injured. All must see the absurdity, the positive injury of such a course; the disease is in the lungs, not in the stomach; then why, in the name of common sense, do you not apply medicine directly to the lungs? The advantage of Inhalation in Consumption and Throat Diseases is, that medicines in the form of Vapor are applied directly to the lungs where the disease exists; the stomach is thus left free to aid in restoring health, by administering to it healthy, life-giving food. There is no case so hopeless that Inhalation will not reach! The means, too, are brought within the reach of all, the manner of administering the Vapors being so simple, that the invalid is never required to leave home, where the hand of friendship and affection tends so much to aid the physician's efforts.

The Inhaling method is soothing, safe and speedy, and consists in the administration of medicines in such a manner that they are conveyed into the lungs in the form of vapor, and produce their action at the seat of the disease. Its practical success is destined to revolutionize the opinions of the medical world, and establish the entire curability of Consumption.

I earnestly appeal to the common sense of all afflicted with lung diseases, to embrace at once the advantages of Inhalation, and no longer apply medicine to the unoffending stomach. I claim for inhalation a place amongst the priceless gifts that nature and art hath given us, that "our days may be long in the land," and as the only

Art of Refuge for the Consumptive.

A method not only rational, but simple, safe and efficacious.

To many of my professional brethren throughout the Union I tender my acknowledgements for their frank and manly course in testifying to the merits of Inhalation. I shall be pleased to co-operate with them in offering to the afflicted the blessings of Medicated Vapor Inhalation in the treatment of Consumption.

One word for myself, in answer to those claiming to have introduced the practice, and to the tribe of imitators who, with brazen impudence, claim it as their own. I both wrote in favor of Inhalation and practised it 15 years ago! The apparatus then used, with the medical agents employed, achieved only a partial success: I therefore did not claim for it then those miraculous powers which a long practice has since enabled me to give to it. Proof of this may be found in my work published in 1840.

Applicants will please state if they have ever bled from the lungs, if they have lost flesh, have a cough, night sweats and fever turns, what and how much they expectorate, what the condition of the stomach and bowels. The necessary medicines, apparatus, &c., will be forwarded to any part.

TERMS.—Five dollars consultation fee. Balance of fee payable when patients report themselves convalescent.

Recommendations by Physicians.

We, the undersigned practitioners in medicine, cheerfully and heartily recommend Dr. Rose's method of treating diseases of the Lungs and Throat, as the best and most affectual ever introduced into medical practice. Our convictions are based upon having several of our own patients, confirmed consumptives, restored to vigorous health, after a few months treatment by Dr. Rose. In the above named diseases the application of Medicated Vapors, inhaled directly into the lungs, may be justly considered a great boon to suffering humanity, rendering Consumption a perfectly curable disease!

Dr. Rose deserves well of the profession for his unwearied labors in bringing the Inhaling method to such a degree of perfection.

RALPH STONE, M. D.
JONAS A. MOTT, M. D.
CYRUS KINGSLEY, M. D.
WM. B. AUSTIN, M. D.
ORVILLE UPSON, M. D.
GAVIN WETMORE, M. D.

DR. ROSE'S TREATISE ON CONSUMPTION.

Price One Dollar. Address

JOHNSON STEWART ROSE,
Office 821 Broadway, New York.

N. B.—The new postage law requires pre-payment of letters. My correspondence being extensive, applicants, to ensure replies, must enclose postage.—

Money letters must be registered by the Post-masters—such letters only will be at my risk.

Oct. 1.

SUPERIOR STOCK FOR SALE.

THE SUBSCRIBER EXPECTING SOON TO remove from the State, offers for sale a number of Pigs of the SUFFOLK and ESSEX breeds. Also some beautiful half breeds of both stocks.

Also, some fine fowls of the Brama Pootra and Shanghai breeds. The white Shanghaies he regards as far preferable to all other breeds, having tried, nearly all. Address,

J. R. GARLICK,
Murfreesboro', N. C.

May 1855.

WHITFIELD'S HOTEL,

WELDON, N. C.,

JOHN SMITH, Jr., Proprietor,

Formerly of Charleston, S. C.

MEALS, FIFTY CENTS.

Left hand side going South—Right hand side going North.

August 18, 1855,

tf.

THE NEW HOTEL,

WELDON, N. C.,

IS NOW OPEN for the reception of visitors. This Hotel is new and newly furnished, and the Proprietors will use every effort to keep a GOOD HOUSE, and render their guests comfortable.

They respectfully solicit a share of public patronage.

T. J. JARRATT & Co.

Proprietors.

MEALS always ready on the arrival of the cars.
July, 1855. 33—tf.

S. W. WESTBROOKS,

Proprietor of the Guilford Pomological Gardens and Nurseries.

WOULD respectfully call the attention of our Southern citizens to his select collection of native and acclimated varieties of FRUIT TREES, embracing some 40,000 trees of the following varieties, viz: Apple, Pear, Peach, Plum, Apricot, Cherry, Nectarine, Almond, also a choice assortment of Grapevines, Raspberries, Strawberries, etc., etc.

All orders, accompanied with the cash, will receive prompt attention and the Trees neatly packed and directed to any portion of the country.

P.S.—Persons wishing Ornamental Trees can be supplied.

Nov. 1855.

9—3m.

RALEIGH FEMALE SEMINARY.

RALEIGH, N. C.

REV. W. H. CHRISTIAN, A. M., President—(aided by a number of Teachers sufficient to meet all the demands of the School.)

The exercises of this institution will commence on Wednesday, the 9th of next January. To the building already on the premises, which are spacious and comfortable, and which are to be immediately thoroughly repaired and fitted up, will be added forthwith a large three story brick building. So that there will be room for a large number of boarders. Mr. Christian, the President is not only a graduate of R. M. College, but has also graduated in several schools of the Virginia University. He has had extensive experience in teaching in Female Schools of high grade, so that persons committing their daughters to his charge may feel well assured that every effort will be made necessary to their improvement.

Terms per Session of Five Months:

Board, including eating, sleeping, lights	
and fuel,	\$60 00
English tuition,	15 00
Music on Piano and Guitar,	20 00
Use of instrument,	3 00

French, Italian, Anglo Saxon, Ancient Languages, Painting and Drawing in all their varieties, Needlework, &c., taught at the usual prices.

Persons intending to board their daughters with the President should inform him of the fact as soon as they can, that he may make his arrangements accordingly. It is preferable that each young lady should supply herself with her towels with her name distinctly marked on them as well as her other clothing. For further particulars address Prof. W. H. Christian, President; or A. M. Gorman, Esq., Sec. of the Board of Directors, Raleigh, N. C.

Payments—one half in advance, the remainder at the end of the Session.

It is very desirable that Pupils be present at the beginning of the session, as the classes will then be formed, and a delay of a few days may subject them to inconveniences.

Students will be admitted any time during the session, and charged from time of entrance only.

DIRECTORS.

C. W. D. HUTCHINGS,	A. M. GORMAN.
T. H. SELBY,	S. H. YOUNG.
J. C. PALMER.	M. A. BLEDSOE,
G. T. COOKE,	N. F. REID.
HENRY PORTER.	

Raleigh, Oct. 21, 1855.

49—t1J

DR. STRONG'S COMPOUND SANATIVE PILLS

These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Scrofula, Salt Rheum, Fevers of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of Piles, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also

DR. STRONG'S PILLS FOR THE STOMACH AND LIVER

A remedy for Coughs, Colds, Catarrh, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a disordered state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, in weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expectant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Syrups, Balsams, or Sarsaparillas, that were ever made: and a simple trial of only one box will prove this important truth.

They promote Expectoration, Loosen the Phlegm, and Clear the Lungs and other Secretory Organs, of all morbid matter, and there is not another remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. They Cure Costiveness, produce a good, regular Appetite, and Strengthen the System.

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the *Planter's Almanac* GRATIS, giving full particulars and certificates of cures.

Both kinds of the above-named Pills are for sale in **Every Town and Village in North and South Carolina.**

And at Williams & Haywood, Raleigh, N. C.
May 1855. 3—

TO PLANTERS.

THE UNDERSIGNED HAS BEEN appointed Agent for the sale of "KETTLEWELLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of COTTON and CORN, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to its yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by HENRY NUTT, Agent for the State of North Carolina, at Wilmington. 3—

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A SUPERIOR Article of Sand Paper. Nos. from 1 to 6. For sale by H. D. TURNER.
Raleigh, December, 1855. 10—

NORTH CAROLINA MUTUAL LIFE INSURANCE Company, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the **MUTUAL PRINCIPLE**, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$30, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

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All losses are paid within 90 days after satisfactory proof is presented.

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NORTH CAROLINA

MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

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J. B. G. Roulhac,	Raleigh.
Henry D. Turner,	do.
J. R. Williams,	do.
T. H. Selby,	do.
C. W. D. Hutchings,	do.
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H. D. Turner,	<i>Vice President.</i>
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This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam

Mills and Turpentine Distilleries,) upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid.

J. C. PARTRIDGE, Sec'y.

Raleigh, Jan. 9th, 1855.

LETTER AND FOOLSCAP PAPER'S.

- 200** Reams Good White Letter Paper, price \$2.
A Ream, worth \$2.50.
200 Reams Good Blue Letter Paper, price \$2.00.
A Ream, worth \$2.50.
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For sale by

H. D. TURNER,

N. C. Book Store.

Raleigh, December, 1855.

FARMER'S HALL,

RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855.

no. 1—tf.

AYER'S PILLS,

A new and singularly successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fever, Gout, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the hears all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

Dr. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

HON. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINSTROP, Ex-Speaker of the House of Representatives.

ABBOTT LAWRENCE, Minister Plen. to England.

† JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, Dr. J. R. CULLTON, Practical Chemist, of New York City, endorsed by

HON. W. L. MARCY, Secretary of State

Wm. B. ASTOR, the richest man in America.

S. LELAND & Co., Prop'r's of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been used, but evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded not of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should prove as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulae by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few would be taken if their composition was known! Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge on the subject freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by scientific men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal viscera to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their irregular action to health, and by correcting, wherever they exist, such derangements as are the first origin of disease.

Being sugar wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

Practical and Analytical Chemist.

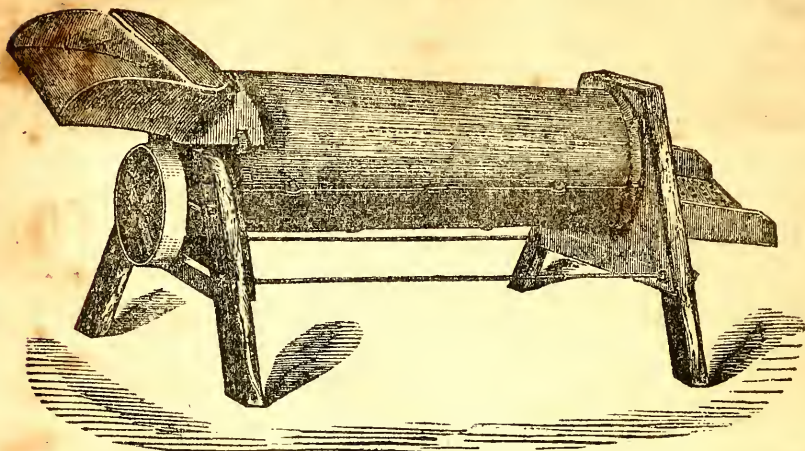
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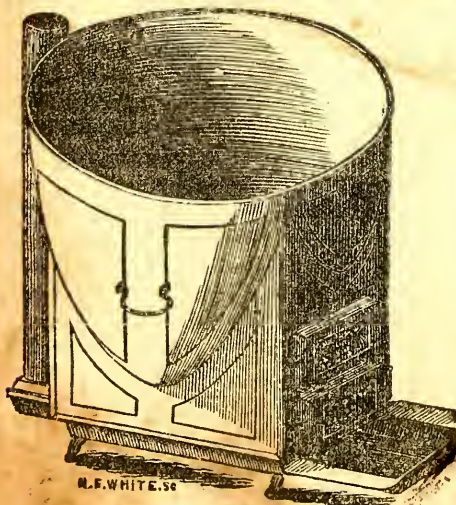
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THIS is the simplest, strongest and most durable CORN SHELLER now in use, the cylinder and body is of iron, and works without Springs or Cog-gearing, will shell faster than one man can feed, when poured in by basket fulls, the corn runs out through the bottom while the cob passes out at the end of the machine thus separating the Corn from the Cob. They will shell when driven by a four-horse power, 1500 to 2000 bushels per day. Price \$45.

The same article, with Fan attached for chaffing, as fast as shelled, and works in like manner, price \$60. Orders filled promptly.

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For a portable furnace and boiler, for Farmer's use in boiling Food for stock, scalding hogs, &c., &c., this is the best article used, they consume but little fuel, and require very little attention from the attendant. They can be placed out of doors, or under a shed, without the least danger from fire.

Sizes—15, 22, 33, 60, 90, 120 gallons.

Prices—14.00, 17.50, 22.50, 36.50, 51.50, 65.00 dollars.

Orders filled promptly.

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An excellent article for Cutting up Sausage Meat, and for Stuffing the same. The machines are separate, and can be bought so, or together, they will do the work of 8 to 10 persons by the ordinary method. The Cutters will cut into fine meat, (finer than can be chopped by hand,) at the rate of 4 lbs. per minute, or 240 pounds per hour. We have small and large sizes of the cutters at \$5, 6.50, 8.00, 10.00 each.

Sausage Stuffers at \$4.50 and \$6.00 each.

A large supply constantly on hand.

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OX YOKES AND BOWS

Of the best quality and finish, long and short. Price \$5.50 to 7.00 each.

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NO. 12.

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Horticulture.

Planting Ornamental Trees and Shrubs.

DEAR SIR:—In common with your many readers, I have had much pleasure in perusing the very interesting and valuable articles on "Fruit-growing in the South," by RUSTICS. The information they contain was just of the kind we most needed.

As your "City of the Bluffs" seems to have become greatly alive to improvement of late
Vol. 1—No. 12.—A.

We lack *variety* as a general thing, in this class of trees and plants. In a climate in which a greater number of rare and extremely beautiful evergreens are perfectly hardy, than in any other I know of, unless perhaps the Isle of Wight, off the South coast of England—and doubtful if even there—we confine ourselves to some half dozen kinds. Nothing can be more beautiful than the Laurier Amandier, (*Cerasus Caroliniensis*,) Cape Jessamine, Arbor Vitæ, some of the *Viburnums*, *Pittosporums*, *Euonymus*, and *Myrtles*; yet, there is a sameness in our lawns and door-yards, from the general and almost exclusive use of these, that might readily be relieved by the addition of some of the many others which are equally, and in some instances, more beautiful.

So with our shade trees. The perpetually recurring Pride of China tree, beautiful though it be, to the exclusion of the scores of magnificent trees, native and introduced, is, to say the least of it, in very bad taste. It is a filthy tree too, about a yard, when compared with many others.

As a shade and ornamental tree, there is none will compare with our magnificent Water oak.

and Live oak. The latter is the more beautiful and permanent, the former is of somewhat more rapid growth. Suppose that, instead of the China tree, your streets and pleasant Bluff promenade, had been lined and shaded with these oaks! By this time, you would have had ornamental trees such as few cities can boast of. The Mobilians were alive to the beauty of the Live oak as a shade tree for their streets and squares, and see the result now!

The Cork-oak. (*Quercus suber*), the Holly leaved and the Cut-leaved Turkey-oak are all very beautiful, though yet somewhat rare. I have fine young trees of all of them.

The Imperial Paulownia, with its immense leaves, and numberless spikes of blue bell-like blossoms, has been introduced some ten or dozen years, and is quite an acquisition. It blooms here, abundantly, both spring and fall.

The Varnish tree (*Sterculia platynifolia*), is so called from its beautiful glossy bark, and large rich colored leaves, which seem all to have been recently coated with green varnish. It is altogether, a pretty and desirable ornamental shade tree.

The Croton tree, and Everblooming China are both pretty trees, though, in a severe winter, the ends of the branches are sometimes killed by the frost.

The *Acacia Julibrissin*, or flowering Acacia, though by no means rare, is yet too showy, with its myriads of pink and yellow flowers, to be omitted in pleasure grounds, or even small yards.

Severable of the Maples are natives here, and form, as elsewhere, most beautiful trees. Perhaps the best of these is the Scarlet Maple, so showy in the spring with its bunches of bright scarlet blossoms. The ash-leaved Maple (*Negundo*) or Box Elder, cannot be excelled as a shade tree in any country, where it has room to grow and spread. Several of the European Maples do well here, and are desirable trees.

The Chestnut is one of the most stately trees of the forest, and desirable not only as a lawn tree, but for its fruit. The large fruited Spanish is the finest.

Our Great Southern Cypress (*Toxodium*) should never be omitted, where the soil is rich and moist. The chief cause of its rarity in lawns, etc., is the difficulty of transplanting young trees from the swamp to the dry upland

of our hills. With trees grown on dry land from seed, there is no such difficulty.

The graceful weeping willow, though so easily grown, is comparatively rare. The *curl-leaved* variety, being quite as *weeping* in his habit as the other, is very curious. Each leaf is curled up like a cork-screw.

The Ginko (*Salisburia*) or Maiden-hair tree is pretty, and quite ornamental. The leaves are very curious.

The Double-flowering Peach is one of the most showy of trees, forming early in the spring, a mass of wreaths of rich and extremely double, rose-like blossoms.

Where there is room for a few large, and wide-spreading trees, the Pecan should not be overlooked. They afford a fine shade, and come into bearing in eight or ten years. We know of one gentleman in Western Texas, who has some 15 or 20 varieties of this delicious nut, which he has succeeded in multiplying by grafting. Two years ago, he sent the writer a quantity of nuts from each of 8 or 10 of the finest of his selections. These were planted, and have produced a fine lot of trees; the trees from each variety of nut show a wonderful family likeness, in foliage, habit of growth, &c.; whilst there is a marked difference between the lots. They have been all twice transplanted, and root pruned each time; thus in a great measure obviating the difficulty in transplanting when the trees are older.

The Mountain Ash, or *Rowan tree*, dear to every Scotchman's boyish recollections, we have succeeded in acclimating. It is a beautiful tree.

The large-leaved Magnolia (*M. macrophylla*) from the same difficulty of transplanting from the woods, is quite rare in our gardens; where its magnificent foliage and immensely large and showy flowers fully entitle it to a first place. When grown from seed in the nursery-row, there is no difficulty in removing it.

Of Evergreen Shade Trees, the *Magnolia grandiflora* stands first. Like its companion the *Holly*, it is not easily removed from the woods. When quite young this may be effected, by lifting with a ball of earth around the roots in the spring, and cutting off the leaves but leaving the leaf-stalks. They well deserve that every available means should be used to secure both—the Magnolia and the Holly (*Ilex opaca*)—wherever shade and ornament are

sought for. During the first three or four years from the seed, their growth is quite slow; but afterwards they push up rapidly, and soon form handsome trees.

There is another Holly, a native of the South, and an evergreen, that is very generally overlooked. It is more commonly planted about Mobile than anywhere else. This is the *Ilex Vomitoria*. The growth is slender, leaves small and numerous, and in winter the plant is covered with bright scarlet berries.

Of the various *Coniferae* it is rare to find a plant in a lawn in all this region; unless perhaps, an occasional Long-leaved or Old-field Pine—both most noble and beautiful trees, and not planted one for a thousand that should be. There are many other Pines, from all parts of the world, now to be found in the nurseries, and all desirable.

The Spruces are the most prized of this family in Europe, although so common, that they are planted by the thousand to serve as screens and lawns and gardens, and to plantations of other less hardy trees. The Norway Spruce, (*Abies excelsa*) the most common, is also the most beautiful. In fact, I know of no tree that equals it in gorgeousness and impressive beauty. Some ten years ago, I imported a lot of fine plants of this and other Spruces; and, as in every other attempt to import young evergreens either from the North or Europe, I saved but a very small per centage. Of those saved were two Norway Spruces. For five years they did not make a growth of more than an inch each year! After that they shot up rapidly, and are now beautiful, healthy plants, eight or ten feet in height. Since then I have been more successful in habituating young plants to the climate, and have fine young trees of several species of Spruce.

The Cedars are very beautiful. And, by the way, what we know as the *Red Cedar*, is a *Juniper*, bearing a small purple berry; the Cedars are cone-bearing. *Cedrus deodara*, the Great Indian Cedar, is the most splendid tree of this family; perfectly hardy here, and of very rapid growth; rare, however. The Cedar of Lebanon is also hardy, but of much slower growth.

Two new evergreen Conifers, *Cryptomeria Japonica* and *Cunninghamii Sinensis*—the former from Japan, the latter from China—I look upon as great acquisitions. Both are at

home in our climate; requiring however, like all of these resinous evergreens, a light and sandy, but rich soil; and are most graceful and beautiful, yet curious ornaments to the lawn or door-yard.

Another of these, the Great Chili Pine, (*Arancaria imbricata*), has not succeeded so well; though I have now a few young seedlings that seem to feel themselves at home.

The Junipers, headed by our own beautiful native, the so-called Red Cedar, (*J. virginiana*), are indispensable. In the "Red Cedar" there is a great diversity of foliage and habit of growth; some being open and loose in habit, others upright and compact. The latter tree I have always selected from the seed-bed. They should have room to grow, and be allowed to sweep the ground with their branches; not pruned up into the likeness of a gigantic broom!

The Swedish Juniper is very upright in growth, and with fine and delicate silvery foliage, and altogether a pretty plant.

The Arbor Vitæ is well known—that is, the Chinese, (*orientalis*), the sort common here. And to form a pretty screen hedge, I know of nothing more beautiful; requiring to be kept nicely clipped, and the seed cones picked off so soon as large enough—otherwise the foliage becomes brown.

The American Arbor Vitæ (*Thuja occidentalis*) is still a more desirable plant; bearing the shears equally well, retaining its color better, and the foliage giving out a sweet odor when crushed. The *Thuja plicata* is a wavy foliaged, pendulous kind, also quite pretty.

It was long before I succeeded with the *Yews*. The English Yew is now perfectly healthy and grows vigorously. Its close, dark green foliage renders it very desirable, and especially in the cemetery, where, from time immemorial, it has been considered the most fitting ornament.

And so with the Tree Boxes—the neatest and prettiest evergreen trees; always fresh and pleasant to look on. They grow better here than even in their native climate; as does, also the Dwarf Box, for edgings.

The *Euonymus*, evergreen and variegated, are both very ornamental. The evergreen is often misnamed Tree Box. They are very hardy and grow rapidly.

There are several of the *Viburnums* which are handsome evergreens. *V. lucidum*? has rich dark foliage and snowy white flowers, and

makes a large plant. *V. laurus tinus*, or Laurustinus, is one of the very richest of our flowering evergreens; blooming, too, so very early in the spring, or in the winter rather, as to be very desirable.

The Laurels are all beautiful. But, like many of our finest plants—because not named in Northern books on gardening; and because Downing expresses his regret, at the same time that he gives expression to his admiration of the plants, that they are “too aristocratic in their nature to thrive in our Republican soil!”—the whole tribe has been overlooked. The *Laurus nobilis*, the Portugal, the English, and the Carolinian laurels, are perfectly hardy—the three first after *habitation* to the climate—and are rich and very beautiful evergreens. I have splendid plants of all, and especially of the English—(*Cerasus lauro cerasus*.)

The *Photynias* or Japan Hawthorns, are, like the Laurels, as yet somewhat rare in our gardens and lawns. There is a superb plant of the smooth-leaved Photynia (*P. glauca*) in Mr. Profilet's garden behind the Episcopal church in the city of Natchez, which has been for many years an object of admiration, and especially when covered with its myriads of snow-white blossoms. It is, I should judge, some twenty-five feet high, affording a fine shade. The Holly-leaved, (*P. serulletta*) is yet more beautiful. I do not know of a richer evergreen. The small leaved is also very pretty.

The Pittosporums, both evergreen and variegated, are well known and favorite plants.—They bear the shears well.

Olea fragrans, the Fragrant Olive, is an universal favorite with the ladies, and most deservedly so.

There are several of the Privets which form beautiful ornamental evergreen trees. The handsome evergreen, so generally admired, on the top of the mound, between the house of our friend Mr. Andrew Brown and the river, is the *Chinese pivot*. It is at all times a beautiful plant, but more especially when covered with its racemens of white flowers. The evergreen, the Myrtle-leaved, and Box-leaved, though commonly all used for hedging, may be readily trained into very pretty smallish trees.

The Japan Plum—*Eriobotrya* (*Mespilus*) *Japonica*—whether as a mere ornamental evergreen, for which it is second to few others; or for the fragrance of its flowers, or delicious

fruit, is deserving of infinitely more attention than it has received. It has hitherto been somewhat scarce, and what few there were, were budded on the quince. I have now large, healthy and handsome trees, *seedlings grown here*, many of which are now full of blossoms. The Japan plum has ripened its fruit repeatedly in this county; and a very delicious fruit it is. It is now abundant in the markets of New Orleans in April.

The *Gardenias*—Cape Jessamine is the most common—are of course indispensable. The dwarf kind (*G. radicans*) is a lovely little plant. Fortune's new Chinese (*G. fortunei*) was lauded so highly that I feared a disappointment. But it proved to be all he represented—the foliage larger and richer, and the blossoms fully double the size and more perfect in form; and though fragrant, not so oppressively so as the old sort.

But I have already extended my notes to such a length, that I must now be brief.

I find I have omitted a very beautiful ornamental plant, which forms a small tree—a great favorite of the ladies—the Venetian Sunac, Fringe or Mist Tree; the blossoms appearing in numerous and delicately colored haze-like spikes. It is not evergreen, but a lovely plant in a group of evergreens.

The Deutzias, Spireas, Buddleas, Weigelas, Jessamines, Crape Myrtles, Double-flowering Pomegranites, Forsythias, Honeysuckles, Lilacs, Snowballs, Syringas, (or Mock Orange,) Ivy, Brooms, with a host of other beautiful plants, I must leave for another opportunity, to describe.

As to transplanting shade trees, ornamental plants, and especially evergreens—bear in mind, that a thing that is worth doing at all, is worth doing well! and act up to it. Let the ground be properly prepared. If the entire lawn was well manured and thoroughly trench-plowed, and garden or door-yard well and deeply dug, so much the better. When this cannot be done, let large holes be dug, but not too deep if in a stiff retentive clay. For evergreens, provide a supply of rich black, leaf-soil from the woods, and of well-rotted manure; for deciduous trees, any good and not too rank manure will do.

If your shade trees are to be procured from the fields or woods, select those only which grow in the open air—not from dense woods or thickets. Spare no pains in the taking up of all

the roots that can be saved, and especially the small fibrous ones; covering them with wet moss or gunny bags, or old carpets, etc., to keep them from being dried by the air or sun. When the tree is a handsome or valuable one, it should be lifted with a sufficient mass of earth to insure its safety. Trees or shrubs which have been prepared the year before for removal, as is done in all good nurseries, can be transplanted with infinitely less risk than those from the fields or woods. I have large specimens of English Laurel, Enonymus, Cedars, Junipers, Japan Plums, Hollies, Magnolias, etc., which have been repeatedly root pruned, so that a very moderate sized ball of earth would contain all of the roots necessary to the well-being of the plant.

Transplanting should be done, now, as early as possible. November, February and March I deem the best seasons here. Plant no deeper than the tree grew naturally. Mix the manure with the best of the soil that came out of the hole; when the manure is rank and coarse, best put the larger portion near the surface. Finish with a few buckets of water, and stake the tree or plant firmly, that it may not be shaken by the wind.

In removing large trees, thin out the top somewhat, and shorten the branches; but never trim the tree to a bare pole, or anything approaching to it. For although in some instances trees thus treated may live, they will be exceptions to the rule. In transplanting Live oaks, I prefer clipping off a large portion of the leaves, first shortening the branches. I have a very handsome lot of these, now five to six feet high, which have been twice transplanted and root pruned, so they may now be removed with entire safety.

In conclusion, let me advise those who have places to improve, to secure good-sized plants, if such can be had that can be safely transplanted. A pleasing effect is thus produced, and at once, which would otherwise require long years of waiting for.

THOS. AFFLECK.

A contented mind is a continual feast; and the pleasure of the banquet is greatly augmented, by knowing that each man may become his own entertainer. So says one who knows.

He who begins an affair without judgment, ought not to be surprised if it end without success.

N. C. State Fair.

PREMIUM LIST,

For the Fourth Annual Fair of the North Carolina State Agricultural Society, to be held in Raleigh the 14th, 15th, 16th and 17th days of October, 1856.

BRANCH I.—Live Stock.

FIRST DIVISION.

1st Class.—Thoroughbred.

- | | |
|--|------|
| 1 For the best Stallion over four y'rs old, | \$25 |
| 2 " " 2nd " " " " | 15 |
| 3 For the best Stallion over two and under four years old, | 15 |
| 4 For the best Stallion Colt under two years old, | 10 |
| 5 For the best Brood Mare over four years old, | 20 |
| 6 For 2nd best Brood Mare over four years old. | 10 |
| 7 For best Brood Mare and Colt by her side, | 20 |
| 8 For best Filly under four years old, | 10 |

In this class, purity of blood being the highest point of distinction, a well authenticated pedigree must in every case accompany each animal put on exhibition to compete for any of the above prizes.

Second Class.—Draught Horses, for Road and Farm Work.

- | | |
|--|------|
| 1 For the best Stallion over four y'rs old, | \$25 |
| 2 " " 2nd " " " " | 15 |
| 3 For the best Stallion over two and under four years old, | 15 |
| 4 For the best Stallion Colt under two y'rs old, | 10 |
| 5 For the best Brood Mare over four years old, | 20 |
| 6 For 2nd best Brood Mare over four years old, | 15 |
| 7 For the best Filly over two and under four, | 10 |

Third Class.—Matched Horses.

- | | |
|---|----|
| 1 For the best pair matched Carriage Horses, | 25 |
| 2 For the best pair matched Horses raised in the State, | 25 |
| 3 For the 2nd best pair matched Horses raised in the State, | 20 |

Fourth Class.—Single Harness and Saddle Horses.

- | | |
|--|----|
| 1 For the best single harness Horse (Mare or Gelding), | 20 |
| 2 For the best single harness Horse raised in the State. | 20 |
| 3 For the 2nd best single harness Horse raised in the State, | 15 |

- 4 For the best saddle Horse (Mare or Gelding,) 20
5 For the 2nd best saddle Horse (Mare or Gelding,) 15

In the classifications for Saddle and Harness Horses, individual excellence in form, size, action and disposition, will be regarded as chief points of merit.

JACKS AND JENNETTS.

IMPORTED.

- 1 For the best Jack with approved certificate, \$25
2 For the best Jennett with approved certificate, 15

RAISED IN THE STATE.

- 1 For the best and largest Jack raised in the State, 25
2 For the best and largest Jennett raised in the State, 15

MULES.

- 1 For the best pair Mules over three years old raised in the State, 25
2 For the 2nd best pair Mules over three years old raised in the State, 15
3 For the best single Mule raised in the State, 10

SECOND DIVISION.

CATTLE.

First Class.—Devons.

- 1 For the best Bull over three y'rs old, \$25
2 " 2nd " " " " " 20
3 For the best Bull over two years and under three, 20
4 For the best Bull over one year and under two, 15
5 For the best Bull Calf, 10
6 For the best Cow three years old and over, 20
7 For the 2nd best Cow three years old and over, 15
8 For the best Cow over two years and under three, 15
9 For the best Heifer Calf, 10

The same classification adopted, and the same premiums offered for Durhams, Ayrshires, Alderney's and Herefords.

GRADES OR MIXED BLOOD AND NATIVE CATTLE.

- 1 For the best Bull over three years old, 20
2 For the best Bull under three years old, 15
3 For the best Cow under three years old, 12

WORKING OXEN.

- 1 For the best pair Work Oxen, 20
2 For the 2nd best pair Work Oxen, 10

In this class, size, action and docility will be regarded as chief points of merit.

FAT CATTLE.

- 1 For the best lot of fat cattle, not less than three, 15
2 For the best single fat Ox, Cow or spayed Heifer, 7

MILCH COWS.

- 1 For the best Milch Cow, giving not less than 20 quarts, 15
2 For the 2nd best Milch Cow, giving not less than 20 quarts, 10

Quality as well as quantity to be taken into consideration to determine the best cow, and the length of time the cow will give milk, escutcheon marks, &c. &c.

THIRD DIVISION.

SHEEP.

First Class.—Merino, Cotswold and Southdowns.

- 1 For the best Buck, \$20
2 " " pen of Ewes, not less than three, 15
3 " " pen of Lambs, not less than three, 10

NATIVES AND GRADES.

- 1 Best pen of fat Wethers, not less than three, 10

GOATS.

- 1 For the best pair of Cashmere Goats, 15
2 " " Milking Goat, any kind, 3

FOURTH DIVISION.

SWINE—LARGE BREED.

- 1 For the best Boar over one year old, \$15
2 " " Breeding Sow over one y'r old, 10
3 " " Breeding Sow with not less than six pigs, 15
4 " " lot of pigs, not less than six under ten months old, 6
This class includes Berkshires, Leicestershires, Chesters, Woburns, Graziers and Kentworths.

Second Class.—Small Breed.

- 1 For the best Boar over one year old, \$15
2 " " Breeding Sow over one y'r old, 10
3 " " Breeding Sow over one y'r old and not less than six pigs, 15
4 " " lot of not less than six pigs under ten months old, 6

This class includes Suffolks, Essex, Neapolitan, Chinese, Guinea and Snap Dragons, and will be regarded chiefly for their fattening qualities.

Third Class.—Natives.

- 1 For the best Boar over two years old, \$15
2 " " Breeding Sow two years old and not less than six pigs, 15
3 For the best lot of pigs not less than six, nor under eight months old, 6

POULTRY.

1	For best pair of Shanghais,	\$ 3
2	" " " Dorkings,	3
3	" " " Polands,	3
4	" " " Brahmans,	3
5	" " " Cochins,	3
6	" " " Black Spanish,	3
7	" " " Game,	3
8	" " " Wild Indian Game,	3
9	" " " Sumatra "	3
10	" " " Stone Fence "	3
11	" " " Dominica, "	3
12	" " " Turkeys,	3
13	" " " China Geese,	3
14	" " " Canada Geese,	3
15	" " " Common Geese,	3
16	" " " Muscovy Ducks,	3
17	" " " Common or Puddle Ducks,	3
18	" the handsomest Pea Fowl,	3
19	" the best half dozen Guinea Fowls,	3
20	" the best and largest exhibition of Poultry by one exhibitor,	10
21	" the best exhibition of Pigeons,	5

BRANCH II.—Agriculture.

First Class.—Field Crops (In the State.)

To be awarded by the Executive Committee, at a meeting to be held for that purpose in January next.

1	For the best crop of Wheat of not less than 50 acres, nor less than 30 bushels per acre,	\$50
2	For the best crop of Wheat, not less than 5 acres, nor less than 40 bushels per acre,	40
3	For the 2nd best crop of Wheat, not less than 5 acres,	25
4	For the best crop of Indian Corn, not less than 50 acres, nor less than 50 bushels per acre,	50
5	For the best crop of Indian Corn, not less than 5 acres of reclaimed or improved land, to be shelled and weighed between the 15th Nov. and the 15th December, not less than 100 bushels per acre,	25
6	For the 2nd best do. do. do. not less than 75 bushels per acre,	20
7	For the best crop of Barley, not less than 1 acre nor less than 50 bushels per acre,	10
8	Best crop of Rye, not less than 10 acres, nor less than 20 bushels per acre,	20
9	Best crop of Oats, not less than 10 acres, nor less than 40 bushels per acre,	20
10	Best crop of Buckwheat, not less than 2 acres, nor less than 30 bushels per acre,	10
11	Best crop of Rice, not less than 50 acres, nor less than 50 bushels per acre,	50
12	Best crop of Rice, not less than 5 acres, and not less than 75 bushels per acre,	25

13	Best crop of Peas not less than five acres, nor less than 25 bushels per acre,	20
14	Best crop of Peas on one acre, not less than 30 bushels per acre,	10
15	Best acre of Beans, not less than 75 bushels,	20
16	Best crop of Ground Peas, not less than 1 acre, nor less than 75 bushels per acre,	20
17	Best crop of Cotton on not less than 50 acres, nor less than 1250 lbs. per acre,	50
18	Best crop of Cotton on not less than 5 acres, nor less than 1600 lbs. per acre,	25
19	Best crop of Timothy, Orchard Grass, Blue Grass, Feather Grass, or Herds Grass Hay, raised on 25 acres, one bale sent as a sample,	25
20	Best 4 acres of Hay, not less than 2 1-2 tons to the acre,	15
21	Best crop of Sweet Potatoes, on not less than one acre, nor less than 300 bushels per acre,	15
22	Best crop of Irish Potatoes, not less than 1-2 acre, nor less than 300 bushels per acre,	15
23	Best crop of Turnips, not less than 1-2 acre, nor less than 500 bushels per acre,	15
24	Best crop of Turnips not less than 2 acres,	15
25	Best crop of Beets, not less than 1-2 acre, nor less than 400 bushels per acre,	10
26	Best crop of Carrots, (with same conditions for Beets.)	10
27	Best crop of Tobacco, combining quantity and quality, not less than 100,000 hills, samples of not less than 2 lbs. of 1st, 2nd and 3rd qualities to be furnished the Committee by the 1st of January 1857,	50
28	Best 16,000 hills Tobacco, with same conditions,	25
29	Best crop of 1-4 acre of Hops, with full account of cultivation and preservation,	15
30	Best crop of 1-2 acre of Flax, with same account as above,	15

Statements to be made by competitors on Field Crops.

1. The land must be measured by some competent person, who shall make affidavit of the accuracy of the measurement, and the quantity of the ground.

2. The applicant shall make affidavit, according to the forms annexed, to the quantity of grain raised on the ground, entered on the premium list, which affidavit must accompany the application for premiums, together with a sample of the grain or other product.

3. The principal object of the Society being to promote profitable cultivation, it does not offer premiums for crops produced by extra-

gant expenditure; therefore, a detailed certified account of the expense of cultivation, must be made; the expense of labor and manures stated; and the kind of manure used.

4. The kind and condition of the soil; the quantity and kind of seed used; the time and mode of planting or sowing, stated. Samples of grain and vegetables produced, to be exhibited at the State Fair, where practicable, and also to be sent to the Ex. Com. at Raleigh prior to the meeting of the Committee in January, 1857.

5. The grain must either be weighed or measured in a legal half bushel; corn to be measured in the ear, and an average specimen of not less than four barrels of average quality of ears shelled, cleaned, and weighed or measured, as above, after the 15th of Nov., and the number of bushels thus estimated, stated in the affidavit.

FORM OF AN AFFIDAVIT.

County, S. S. — A. B., being duly sworn, says he accurately measured the land upon which C. D. raised a crop of — the past season, and the quantity of the land is — acres and no more. [Signed] A. B.

Sworn to before me, this — day of — 185 .

County, S. S. — C. D., being sworn, says he raised a crop of — the past season upon the land measured by A. B., and that the quantity of grain raised thereon was — bushels and no more, (or measured in a sealed half bushel as the case may be,) and that the statements in regard to the manner of cultivation &c. are correct, to the best of my knowledge.

[Signed] C. D.

Sworn to before me, this — day of —, 185 . Justice.

Second Class.—Agricultural Productions, Raised by the Exhibitor.

- | | | | |
|----|---|-------------------------------|-----|
| 1 | For the best variety of Bread Corn | 1 bushel as sample, | \$3 |
| 2 | do. do. do. Stock | do. 1 do. do. | 3 |
| 3 | do. do. do. Wheat, | 1 do. do. | 3 |
| 4 | do. do. do. Oats, | 1 do. do. | 3 |
| 5 | do. do. do. Rye, | 1 do. do. | 3 |
| 6 | do. do. do. Barley, | 1 do. do. | 3 |
| 7 | do. do. do. Rice, | 1 do. do. | 3 |
| 8 | do. do. do. Field Peas, | 1 do. do. | 3 |
| 9 | do. do. do. Ground | do. 1 do. do. | 5 |
| 10 | do. do. do. S. Potat's, | 1 do. do. | 3 |
| 11 | do. do. do. Irish do. | 1 do. do. | 2 |
| 12 | do. do. do. Cott'n, | 2 stalks as sam. | 3 |
| 13 | do. do. do. Grass Seeds adapted | the South for Hay or Grazing. | 5 |
| 14 | For the best specimen of Cotton. | 50 lbs. in seed, | 5 |
| 15 | " the greatest variety of the above articles raised on one farm, | | 10 |
| 16 | " the best specimen of Virgin Dip Turpentine, one barrel as sample, | | 3 |
| 17 | " the best specimen of Rosin, one barrel as sample, | | 3 |

- | | | |
|----|---|---|
| 18 | " the best do. Hemp prepared or dress'd, | 3 |
| 19 | " the best do. Flax " " | 3 |
| 20 | " the best Maple Sugar, | 3 |
| 21 | " the best Leaf Tobacco, not less than 10 pounds, | 3 |

Third Class—Salt Provisions.

- | | | |
|---|---|-----|
| 1 | For best half barrel Pickled or Mess Beef, sample to be cooked, | \$5 |
| 2 | For best half barrel Pickled or Mess Pork, | 5 |
| 3 | " doz. Bacon Hams, regardless of age, one to be cooked as a sample, | 10 |
| 4 | For best half doz. Mutton or Venison Hams, | 5 |
| 5 | " best barrel Roe Herrings, | 10 |
| 6 | " best " " do | 10 |
| 7 | " best barrel Shad or Mullet, | 10 |
- Exhibitors must state in writing mode of Pickling the Beef and Pork and curing and preserving the Bacon.

DAIRY.

- | | | |
|---|---|------|
| 1 | Best sample of Fresh Butter not less than 10 lbs. | \$10 |
| 2 | 2d best do do do | 5 |
| 3 | Best Firkin of Butter not less than 80 pounds, | 10 |
| 4 | 2d best do do do | 5 |
| 5 | Best specimen of Cheese, | 5 |
- The process of making and preserving the Butter and Cheese, and its age, must be given in full by the exhibitor.

FOOD, CONDIMENTS, &c., &c.

- | | | |
|----|--|------|
| 1 | Best specimen of Wheat Flour, 1 barrel as sample, | \$10 |
| 2 | 2d best do do do | 5 |
| 3 | Best specimen of Corn Meal, 2 1-2 bushels as sample, | 5 |
| 4 | Best specimen of Buckwheat Flour, 1-2 barrel as sample, | 5 |
| 5 | Best specimen of Rye Flour, 1-2 barrel as sample, | 5 |
| 6 | Best specimen of Starch from Wheat, Potatoes, &c., 3 lbs. as sample, | 3 |
| 7 | Best specimen of Wheat Bread, 3 loaves, | 3 |
| 8 | 2d best do do do | 2 |
| 9 | Best specimen of Corn Bread, 3 loaves, | 3 |
| 10 | Best specimen of Honey, half gallon strained, and in comb, 10 lbs. | 3 |
| 11 | Best specimen of Crackers, soda, butter and water, 10 lbs. each, | 5 |
| 12 | Best specimens of Jellies, Preserves, Pickles, Jams, Catsups, Cordials, &c., &c., each, | 3 |
| 13 | Best specimen of the following dried Fruits, viz: Peaches, Pears, Figs, Apples, of each not less than half bushel; Grapes, Plums, Cherries and Whortleberries of each not less than 10 lbs. as a sample, each, | 3 |
| 14 | Best specimen of Domestic Wine not less than two bottles, | 5 |
| 15 | Best and greatest variety of Domestic Wine, not less than two bottles of each, | 10 |

- 16 Best specimen of bottled cider not less than one doz. bottles, 5
 17 Best specimen of Linseed, Turpentine, Castor, Cotton Seed, Fennel or any other variety of oil made in the State and prepared by the exhibitor, 3

Fourth Class—Horticulture.

FRUITS ADAPTED TO THE SOUTH.

- 1 Best and greatest variety Apples, \$10
 2 " " Pears, 10
 3 " " Peaches, 10
 4 " " Quinces, 5
 5 " " Figs, 5
 6 " " Grapes, 10

Fruit Trees, &c., adapted to the South.

- 1 Largest and best variety of Apple Trees, \$10
 2 " " Pear " 10
 3 " " Peach " 10
 4 " " Strawberry v'ns. 2
 5 " " Raspb'ry " 2
 6 " " Gooseberry " 2
 7 " " Cranberries 2

Vegetables.

- 1 6 Best stalks of Celery, \$2
 2 6 " Cauliflower, 2
 3 6 " Broccoli, 2
 4 6 " Cabbage, 2
 5 2 " Egg Plants, 2
 6 " Variety of Squash, 2
 7 " Peck Onions, 2
 8 " Sugar Beets, Carrots, Parsnips, and Turnips, 1-2 doz. of each, for each variety, 2
 9 " Pumpkins, 2

BRANCH THIRD—Mechanics.*First Class—Plows.*

- 1 For the best Side Hill Plow, \$10
 2 " " do. manufactured in the State, 10
 3 " " Do. double Mould Board, 10
 4 " " manufactured in the State, 10
 5 " " Do. 2 horse Plow, 10
 6 " " Do. manufactured in the State, 10
 7 " " Wrought Plow, 10
 8 " " manufactured in the State, 10
 9 " " Do. 2 horse Plow, 10
 10 " " manufactured in the State, 10
 11 " " Subsoil Plow, 10
 12 " " Do. manufacture in the State, 10
 13 " " Cotton Scraper, 10
 14 " " do Sweep, 5
 15 " " Toothed Cultivator, 5
 16 " " manufactured in State, 5
 17 " " Harrow, 5
 18 " " manufactured in State, 5
 19 " " Horse Rake, 5
 20 " " manufactured in State, 5
 21 " " Iron Roller—Smooth, 5
 22 " " Roller for crushing clods wood or iron, 5
 23 " " And greatest variety of Agricultural implements, manufactured in the State, by the exhibitor or under his supervision, 25

Second Class—Farm Vehicles, &c.

- 1 For the best 4 or 6 horse road Wagon, 20
 2 " " 2 do. do. 10
 3 " " 1 do. do. 5
 4 " " Rigging for hauling hay, fodder or straw, 5
 5 " " Horse Cart, (Dumping,) 5
 6 " " Ox Cart and Yoke, 5
 7 " " Wheel barrow, 2
 8 " " pair wagon or plow Hames, 2
 9 " " Cart Saddle, 2
 10 " " 2 horse pleasure Carriage, 25
 11 " " 2d best do. do. 15
 12 " " Phaeton, Rockaway, Top Buggy, open Buggy or Sulky, each, 15
 13 " " 2d best do. do. 10

Third Class—Saddlery, &c.

- 1 For the best set of Carriage Harness 15
 2 " " Buggy or Sulky do. 10
 3 " " Gent's Saddle, Bridle and Martingale, 10
 4 " " Ladies do. do. 5
 5 " " Set 4 horse wagon harness 5
 6 " " do. 2 do. do. 5
 7 " " do. 1 do. do. 3
 8 " " do. 1 do. Plough Gear, 2
 9 " " Cart Harness, 3
 10 " " Felt Saddle Cloths, 3

Fourth Class—Machinery.

STEAM POWER.

- 1 For best Engine for agricultural purposes at work on the Fair Ground, 25
 2 For best Locomotive Engine, 25
 3 " " Railway rolled iron—specimen of 1 ton manufactured in the State, 25
 4 For best Pig iron do do do 15

HORSE POWER.

- 1 For best Sweep Horse Power, 20
 2 " " Railway do do. 20
 3 " best Saw and Grist Mill and Threshing Machine, each, 20
 4 For best Broadcasting and Drilling Machine for grain or grass seed, 15
 5 For best Broadcasting Machine for sowing Bone dust, Guano, Lime, &c., 15
 6 For best Ditching Machine, 5
 7 " " Cotton Gin, 20
 8 " " do do manufactured in the State, 20
 9 For best reaping Machine, 20
 10 For best Mowing do for Grass, 20
 11 " " Hay Press, and Cotton Press and Brick Machine, each, 10
 12 For best Shingle Machine, 10
 13 " " Saut Machine, 10
 14 " " Corn and Cob Crusher, 10

HAND POWER.

- 1 For best Fanning Mill. Corn Sheller, Straw and Shuck Cutter, each, 8

- 2 For best Corn Planter or Drill,
- 3 " " Turnip do
- 4 " " Pump,
- 5 " " Churn, Sausage Cutter and
Stuffer, each,
- 6 For best Sewing Machine,
- 7 " " Grain Cradle,
- 8 " " do made in the State,
- 9 " " Hay Knife for Cutting down
Hay and Straw Stacks,
- 10 For best Hoes for corn and cotton cul-
ture made in the State, each,
- 11 For best Hay and manure Forks made
in the State, each,
- 12 For the best Scythe Snath,
- 13 " " Vegetable Root Cutter,

Fifth Class—Cabinet Work.

- 1 For best Bedstead made in the State,
- 2 " Cradle or Crib for Children,
- 3 " Rocking Chair,
- 4 " half doz. Sitting Chairs,
- 5 " Centre Table,
- 6 " Wash Stand,
- 7 " Sofa,
- 8 " Wardrobe, Sideboard or Bureau,
- 9 " Desk, Book Case, &c.,
- 10 " Window Sash and Blinds, each,
- 11 " Pannel Door,

SHOES, HATS, &c.

- 1 For best pair of Gentlemen's Boots,
- 2 " do do Shoes,
- 3 " half doz. Brogans,
- 4 " 1-4 doz. Dress Hats, Silk or Fur,
- 5 " Plantation Hat,
- 6 " 1-2 doz. Wool Hats,
- 7 " Straw or Grass do.

SUNDRIES.

- 1 Best lot of Guns,
- 2 " Stone, or Earthen Ware, each,
- 3 " Cast (hollow) Ware, Pots, Ket-
tles, &c.
- 4 Best lot of Woodware (hollow) as Buck-
ets, Tubs or Pails, Keelers, &c.
- 5 Best lot of Casks, Barrels, &c.
- 6 " Leather, Sole Kip and Calf, each,
- 7 " Side of Harness Leather,
- 8 " Dressed Buck, Sheep or Goat
Skins,
- 9 For greatest variety Edged Tools, Au-
gers, &c.
- 10 For greatest variety of Mechanics Tools
made in the State,
- 11 For the 2d best and greatest variety of
Mechanics Tools made in the State,
- 12 Best lot of manufactured Tobacco—
Chewing.
- 13 Best lot of Smoking Tobacco,
- 14 " Box Cigars,
- 15 " Tallow Candles, 25 lbs. with
process of making,
- 16 Best lot of Soap, 20 lbs. with process
of making,

- 5 17 For specimen of Toilet and Shaving
Soap, with process of making, 3
- 5 18 Best Barrel N. C. Lime, 5
- 5 19 " Sett Knives and Forks manufac-
tured in the State, 5
- 10 20 For the best Buckskin, 5

BRANCH FOURTH—Manufactures.

First Class—Mill Fabrics.

- 3 1 Best piece not less than 15 yds. Cassi-
mere, 15
- 2 2 " " do do " Sattinette, 10
- 3 3 " " do do " Woolen Jeans, 10
- 2 4 " " do do " Linsey or Ker-
sy for Negro Clothing, 15
- 5 5 Best piece not less than 15 yds. Flannel
plain and twilled, 10
- 6 Best pair of Blankets, 10
- 5 7 Best piece 24 yards Woolen Carpet, 10
- 3 8 Best Hearth Rug, 3
- 3 9 " piece of Sirling and Sheeting, 10
- 3 10 " " Bed Ticking, 5
- 3 11 " " Cotton Jeans, 10
- 3 12 " Bale Cotton yarns all numbers, 10
- 3 13 " lot Cotton Twine, 3
- 5 14 " " Pepper, printing, letter, cap, &c. 3
- 5 15 " Coil of Rope, Hemp or Cotton, 5
- 5 16 " Mattrass, hair, Moss, Shuck or Cot-
ton, 10

Second Class—Household Fabrics.

- 3 1 Best Counterpane, 3
- 3 2 " Bed quilt, (cotton,) 5
- 3 3 " do do Silk, 5
- 3 4 " Comfort, cotton, 3
- 3 5 " Home make Carpet, 10
- 2 6 " Hearth Rug, 6
- 3 7 2d best do. do. 4
- 8 Best pair Yarn Hose, 2
- 9 2d best do. do. do. 1
- 5 10 Best pair Home made silk Hose, 3
- 5 11 " Woolen Shawl, 3
- 12 " Foot Mat, 2
- 5 13 " piece 18 yards negro Woolen
Cloth, 10
- 5 14 Best piece 18 yds. Rag Carpet, 5
- 5 15 Knit Counterpane, 5

DISCRETIONARY PREMIUMS.

Will be awarded for contributions to Floral
Hall.

Works of art and taste, needle-work, paint-
ings, drawings, &c., &c.

BRANCH V—Experiments and Essays.

EXPERIMENTS.

For each of the two best experiments, or se-
ries of experiments, on any of the following
subjects, a premium, as follows:

- 3 1. Effects (in profit or loss) of the usual
mode of saving corn fodder, by stripping the
green blades and cutting off the tops, \$10
- 5 2. Cost and effects of sub-soil plowing
under different circumstances of soil and
sub-soil, 10

3. Action or non-action of lime as manure, above the falls of the tide-water rivers,

4. Action or non-action of gypsum below the falls of the tide-water rivers, and on soils respectively rich and originally poor, and on the latter, after as well as before their being made calcareous,

5. Cost and effects of bone-dust, (or phosphate of lime,) as manure,

6. How late in reference to the growth, the last tillage (by plow or cultivator,) should be given to corn for the best product; and whether the said last tillage should be shallow or deep,

7. Best series of comparative experiments in the cultivation of corn,

8. Benefits and products of guano, compared to costs; to be tested by not less than three different experiments, made under circumstances more or less different,

9. Benefits or profit of preserving or applying human excrements as manure, whether prepared for sale and distant transportation, or otherwise, but the whole operation to be in North Carolina,

10. Tide marsh mud, or swamp muck, or peaty soil, (either kind to be accurately described and characterized,) as manure, in compost with lime or otherwise,

11. Value of charcoal as an aid to fertility,

12. Value of sulphate of barytes as a manure, especially for clover,

13. *Tobacco*.—Culture, cost and profits of cultivating, and comparative effects on production, from different distances of planting, modes of priming, topping, &c., comprising at least three different experiments,

14. Cultivation and comparative feeding value of rye,

15. Planting, culture, pruning and supporting in open Vineyards different varieties of Grape Vines for the table, or making of Wine,

ESSAYS OR WRITTEN COMMUNICATIONS.

For each of the best five on any of the following subjects, a premium, as follows:

1. On improving and enriching poor land—whether naturally poor, or naturally rich, or good, and subsequently exhausted by severe cropping,

2. On draining,

3. On rotation of crops,

4. On the accumulation, preparation and application of stock yard and stable manure,

5. On the formation and constituents of composts and the application of them,

6. On the "green sand" or gypseous earth of lower North Carolina as manure—and the facts and causes of effect or non-effect.

7. On the properties and value of the Southern Pea (or "cornfield pea" of any variety,) and the culture thereof, whether for saving the pea ripened, or ploughing under the growth, green or dry, for manure, and as a preparation for wheat or other grain crops, and as food for swine and other stock.

8. On the comparative profit of planting and farming, and of the two combined—improvement of land being considered,

MINERALS, &c.

1. For the best collection of useful Minerals of the State, including Coals, Iron Ore, Copper Ore, Limestones, Marbles, Sandstones, Marls, Peats, Soils, &c., discretionary premium.

REGULATIONS.

1. All members of the N. C. State Agricultural Society will be furnished with a badge of membership, upon payment of the annual tax of \$2, and will be required to wear the same during the Fair. This badge will admit the ladies of his family and children under 18 years of age, during the fair.

2. Members of the Society and families alone will be admitted on Tuesday, the day for examination and awards by the judges. All competitors are expected to be present. The public will be admitted on and after Wednesday, at 10 o'clock. Price of admission 25 cents. Children and servants 12 1-2 cents. Clergymen, Editors and Pupils of charitable Institutions admitted free.

3. Agricultural Societies and Institutions from other States are invited to send Delegates. Such Delegates will be presented with a complimentary card.

4. All Exhibitors who intend to compete for the premiums of the Society, must become members of the same, and have their articles on the ground and entered at the Secretary's Office in Reception Hall, at or before 5 o'clock on Monday evening, Oct. 13th, without fail, so that they may be arranged in their respective departments, and in readiness for examination by the Judges on Tuesday morning at 10 o'clock.

5. The regulations of the Society must be strictly observed by exhibitors, otherwise the Society will not be responsible for the omission of any article or animal not entered under its rules.

6. No article or animal entered for a premium can be removed or taken away before the close of the exhibition. No premium will be paid on articles or animals removed in violation of this rule.

7. All articles and animals entered for exhibition must have cards attached with the number as entered at the Secretary's Office; and exhibitors in all cases must obtain their cards

previous to placing their articles or animals on the Fair grounds.

8. Those who wish to offer animals or articles for sale during the Fair must notify the Secretary of such intention at the time of entry.

9. The Executive Committee will employ a day and night guard, and will use all reasonable precaution in their power, for the safe preservation of all articles and stock on exhibition, but will not be responsible for loss or damage that may occur. Exhibitors must give attention to their articles or animals during the Fair, and at the close of the exhibition attend to their removal.

10. The awarding committee or judges, selected for the next Fair, are earnestly requested to report themselves to the chairman of the Executive Committee at Reception Hall, upon the grounds of the Society, on Tuesday morning, the 14th day of October, 1856.

11. In no case can the Judges award special or discretionary premiums; but will recommend to the Executive Committee any articles in their class which they may deem worthy of special notice and for which a premium has not been offered.

12. The Judges on animals will have regard to the symmetry, early maturing, thorough breeding, and characteristics of the breeds which they judge. They will make proper allowances for the age, feeding and condition of the animals, especially in the breeding classes, and will not give encouragement to over fed animals.

13. No stock of inferior quality will be admitted within the grounds; a committee will be appointed to rule out all below a medium grade.

14. Animals to which premiums have been awarded must be paraded around the track, that visitors may see the prize animals.

15. No person will be allowed to interfere with the Judges during their adjudications.

16. The several Superintending Committees will give particular direction to all articles in their departments, and see that all are arranged in the best order possible to lessen and facilitate the labors of the Judges in their examination.

17. The Superintendants will attend each set of Judges in their respective departments and point out the different articles or animals to be examined, will attach prize cards to the articles, or flags to the successful animals after the Judges' reports have been made up and delivered to the chairman of the Executive Committee.

18. The Judges will withhold premiums on animals or articles in their opinion not worthy; though there be no competition.

19. Premiums of \$25, and upwards will be awarded in *Plate*, unless the person to whom

the award is made shall prefer the payment in money.

20. Stock brought to the Fair for sale, will have an enclosed lot adjoining the Fair grounds assigned them, with water convenient, where they can be kept at the expense of the owner.

21. Articles manufactured in the State, when brought in competition with foreign articles will take precedence, other things being equal, and the foreign article be entitled to a second premium.

22. Articles not enumerated will be entitled to discretionary premiums at the option of the Executive Committee.

23. The Chief Marshal, with efficient aids, will be in attendance during the hours of exhibition to keep proper order.

24. No exhibitor will be permitted to enter more than one animal in each of the sub-classes.

25. Animals, when duly entered, are well provided for by the Society, without charge to the owner, and cannot be removed from the ground, except by permission of the Executive Committee.

26. All machines, implements, or other products of mechanical art, must be exhibited by their respective makers, or inventors, or improvers, or their assignors, to or for whom only premiums for such articles will be awarded.

27. Every machine or implement offered for a premium, must be so designated or described as will serve to identify it to future purchasers, and also the selling price of the article must be stated and marked on the labels and in the published reports of premium articles.

28. Efficiency, cheapness and durability will be regarded as chief excellencies in every machine or implement.

29. The Chief Marshal will call the Judges at 10 o'clock on Tuesday morning--assemble them at his tent on the grounds--furnish them with the printed list of premiums, also with blank books in which to register their awards, and have the Judges conducted by the assistant marshals to their respective departments of the exhibition.

30. The Marshal and his aids shall give particular attention to the proper arrangement of all articles exhibited in their respective departments; point out the articles or animals to the Judges, and otherwise facilitate the examination by the Judges.

31. The track will be open for the trial of harness and saddle horses every day during the Fair.

32. A band of music will be in attendance each day, during the hours of exhibition.

33. An efficient police will take charge of the grounds during the night.

THOS. RUFFIN, Ch. Ex. Com.
-J. C. PARTRIDGE, Sec'y.

Miscellaneous.

Cultivation of Wheat.

[This branch of farming deserves more attention than it has received, and a thousand mistakes are made in its culture as fatal as one described below. We find a capital treatise on the subject in the *Homestead*, by "a son of Connecticut," from which we extract the following, which we commend to the careful attention of our readers.—Ed.]

I was particularly struck with an essay in the last number of the *Homestead*, upon the cultivation of wheat, displaying a knowledge of that crop and its requirements, and a familiarity with the details of its management, which, however natural on the banks of the Genessee, would scarcely be looked for among the hills of Connecticut. As to growing wheat in your State, I have no doubt it can be done on many soils with the same expenditure of labor and skill which are necessary to its successful cultivation elsewhere.

Several experiments, it is true, within my own knowledge, have resulted in failure—but it is only natural that they should do so—for they were made without any sufficient acquaintance with the peculiarities of the crop and the conditions of its growth and maturity. I myself, when a boy, assisted in one of these experiments. A rich dark loam, admirable for corn and oats, but rather too moist for rye, was for the first time sown with wheat. I think it followed corn and was got in in October. Any wheat-grower needs not to be told the result. The straw was black as the ground it sprang from, and the wheat was nowhere. A single well-ventured kernel could not be found in the entire field. In this experiment the sowing was a month too late, but that mistake only added a superfluous certainty to a failure already certain. No rich, moist, dark loam should ever be sown with wheat in Connecticut or any other State. Such a soil will always pay better in corn, oats or grass. But on that same farm, on the warm, dry hill-sides, which I have no doubt might be made to produce forty bushels of Soule's wheat to the acre, or twenty-five of the Mediterranean. Not with the same treatment—but not mean that—for the same treatment

would not be proper for the two varieties of wheat. For the Soule's I would select a suitable piece of ground in soil, manure it well in the spring with stable manure, which had been made and kept under cover—break up and cultivate one summer in corn—the next summer fallow the corn stubble, the more it is ploughed the better, and sow in September. But that puts off the wheat till the next year. Well then, if I had no suitable land in cornstubble, and wished to sow the current year, I would select as before a piece of soil of some kind, but clover would be of course the best; manure in June and turn it under along with a good coat of grass; in August when the whole would be well rotted, intermix it all thoroughly by repeated ploughings and harrowings and sow as before. Or, if I chose to plough but once, I would compost the manure, turn under a coat of grass in June—cultivate frequently during the summer—expending no less labor than in the former method, and at the time of sowing spread on the compost and harrow it in with the seed as before the drill. All of these three methods, especially the two last, are much practiced by successful wheat-growers in Western and Central New York. A still better manuring would be to cowpen the ground, or best of all, to fold sheep upon it. Sheep, indeed, of themselves, usually select for their night lodges that portion of their range which is most dry and elevated, and therefore best suited to wheat.

Having prepared the land, as above indicated for Soule's wheat, it would be a mistake to sow Mediterranean. That would be likely to fail, and return but a light yield. Soule's wheat *must* have a dry, mellow, rich soil, (rich, I mean, in ammonia and phosphates, for an excess of humus is hazardous to any kind of wheat,) and then, with a favorable season, it will yield abundantly. The Mediterranean is less exacting in regard to most of these conditions, but it must not have a soil too rich; a maximum crop of this kind of wheat, not exceeding, I think, 20 bushels per acre, or about half the maximum of the other. The same corn-stubble which should be fallowed for Soule's wheat, would probably yield 30 bushels of barley or 60 bushels of oats, and then be all the better for Mediterranean. Which would be most profitable would depend on circumstances. Perhaps, after all, the best wheat for Connecticut would be the old-fashioned white

flint; but I do not know where it can be found. This wheat grows with a slender straw and a long beard, on which the kernels are sparsely set and closely embraced in the husk, for which reasons it is not liable to sprout in wet seasons. I have had five hundred bushels of this wheat from 20 acres, and have known it to average as high as 30 bushels per acre. It will not bear much manure, as it lodges where Soule's wheat would do best, but it will grow and yield 15 or 20 bushels per acre on a thin soil, where Soule's would prove a failure. For quality this variety is superior to all others, holding the same rank among them that the Saxon does among other varieties of wool. But it has been supplanted by the Soule's and the blue stem, both in this State and at the West, just as when we were boys, Col. Humphrey's sheep were supplanted by the Saxons. I have inquired much for it for two years past, and I know of others who have done so. The best miller in this county (Wayne) has seen none since 1851, when he bought a sample of a neighbor of mine to manufacture some flour for the London Exposition.

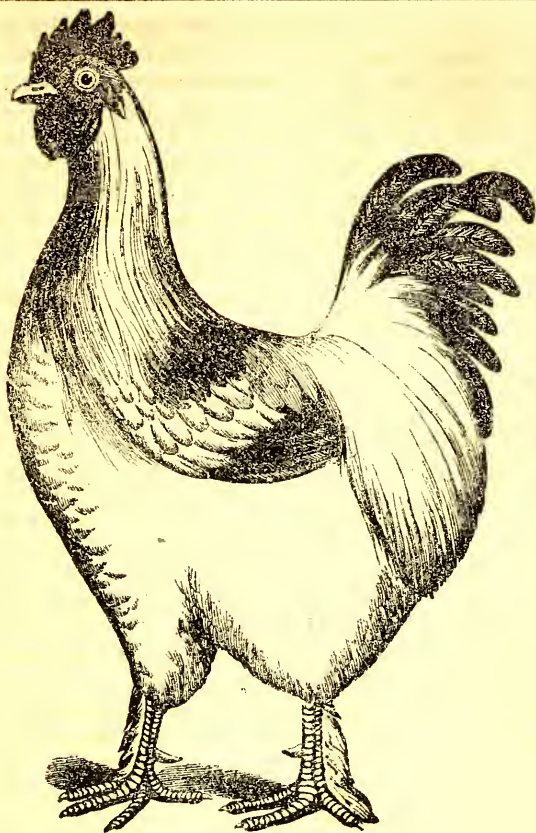
But I am growing garrulous on this subject of wheat culture, and giving it a prominence far beyond your interest in it, or mine either, indeed; for this year I have sown no wheat. More money has been lost than made at the business in this State these three years, owing to the depredations of the midge or red weevil. And it is now well settled that no lands here are at present safe for wheat, with the exception either of limestone ledges, or deposits of sand or gravel and coarse drift. Fortunately there is considerable land of the former description west of the Genessee, and a large proportion of the latter, composed of limestone and sandstone pebbles, intermixed with loam, piled up often in ridges forty or fifty feet in height on this side of that river. On these warm quick soils, the wheat either comes into flower too early for the midge to deposit her eggs, or what is equally to the purpose, the grain matures so rapidly as to allow the young weevils little opportunity for mischief. This weevil, as you know, is a delicate little maggot, which sucks up the first sweet juices of the forming kernel, but has no means of penetrating its toughening skin as it advances into the milky state. A single weevil makes little impression on a kernel of wheat; four or five reduce it to hen-feed; but fifteen or twenty are

often found inhabiting a single gland. Those buds which are most safe from the attack of the midge are most liable of any to injury from the Hessian fly. But this insect does not inflict such sweeping destruction as the other. And yet it is almost incredible when we reflect that a single fly in its larva state is competent to destroy a stalk of wheat, but not less than one hundred weevils would be requisite to devour the product of that stalk.

A good many farmers in this region sowed rye last fall—some on clover soil which had been mowed, but more on oat stubble—and they have generally harvested about thirty bushels per acre. Things with us now point to the old Connecticut rotation of corn, oats, rye, and grass; and if prices remain where they now are, fifty bushels of corn, fifty of oats, and twenty-five of rye, succeeded by two or three good crops of grass, will not be bad farming.

Wheat is preeminently the crop of an interior country, because it always commands a higher price per pound than any other grain, and for that reason can better afford the cost of long transportation. But near the great markets this advantage disappears, or is even reversed; and I have remarked for years that the best grass lands of Oneida county, and the best wheat lands of Monroe, have been on a level as to price. Everything to its proper use in the true motto, and if a man's lands will pay the best profits in wheat, then he should sow wheat, though it be on the cobble-stone knolls in the valley of the Nangatuck. And for myself, I think if I were so unfortunate as to own any of the shrub-oak barrens along the Canal Railroad, I should investigate, in a practical way, the relations of guano and clover and wheat; but I will not deny a personal preference, along with S. N. G., to tend the sleek kine on the verdant slopes of Cream Hill, or in some green valley where a clear brooklet threads its way towards Lake Ontario, to watch the glad gambols of my calves, and my cattle, and my pigs, and my children.

[These suggestions, coming from an intelligent and practical wheat-grower, are quite to the point. They explain the characteristics of the different varieties of wheat, and by their practical details will enable our farmers to experiment intelligently upon its culture. Since the publication of the first article on this subject, we learn that here also the weevil is the worst enemy of winter wheat, and that many crops this season have been entirely destroyed by it.]



Brahma Pootras as Useful Poultry.

As a correspondent, who does not wish to have his letter published, would like to know what we think of the Brahmas (leaving the somewhat over-discussed but unanswerable question of their origin,) we will speak of their faults and merits as useful domestic poultry.

The hardness of their constitution, and the rapidity with which the chickens grow, and the manner in which they thrive, even under unfavorable circumstances, greatly increase the value of these fowls in our ever-varying climate. In our experience, with rather a large stock, we have found them good and *regular* layers of fine, large-sized eggs. After laying immensely throughout the autumn months, they discontinued towards winter, and recommenced in January. From that time to the present they have laid exceedingly well. All the hens except one, which has not been broody, have set and brought up chickens during the spring, and one only became broody a second time.—The Cochins have, in the same period, most of them set three times, and from this cause have laid a smaller number of eggs than the Brahmas. From one Brahma hen, which was noticed particularly—because, from her beauty, it was thought desirable to get all her eggs hatched—thirty-five chickens were reared,

seventeen eggs were spoiled when set, from the intensely cold weather and other causes, and about a dozen were other ways made use of. After laying these eggs she set, and is still with her chickens, now a month old. She did not begin to lay regularly until the first of March, as, after laying six eggs in January, she was put off her laying by a little indisposition, which kept her back until that time. Some which began earlier, and have laid since rearing their broods, have produced more eggs, but, being less admired, no exact account has been kept of their doings.

We have found the Brahmas excellent mothers to their own chickens, but rather spiteful to those belonging to other hens. They often begin to lay when the chickens are five or six weeks old, but sometimes not so soon.

From its hardness, and the ease with which it accommodates itself to the inclemencies of our climate, we reckon the Brahma the most valuable fowl which has ever been introduced among us; for when more delicate sorts are pining and dying off, and at times all kinds are suffering more or less from cold and wet, we have noticed the Brahmas alone continue brisk, happy, and healthy.—*London (Eng.) Poultry Chronicle.*



The Carolina Cultivator.

RALEIGH, FEB., 1856.

Gravel Wall for Houses.

Among the many objects which claim the attention of farmers is the erecting of good and substantial buildings. And for this purpose we would bring to their notice a plan of building which has been more or less before the public for a long time, but is not much known in our State. We allude to the so-called Lime and Gravel wall, or concrete as it is called by others. The materials for this mode of building are lime, sand and any kind of stone or gravel. Mortar is made with the sand and lime, and this forms a cement to unite the stones and gravel into a solid wall. We have built a small house in this way and will give our experience in the matter, with the hope that others may find it of use to them. After knowing the cost of material and labor, any one will be able to decide for himself whether this mode of building is such as would suit his means or wishes, for we take it for granted that there is no single material for the walls of houses that can be recommended as universally applicable at all times and under all circumstances.

The materials which we used were the loose surface rocks which are found in great abundance all about the village of Chapel Hill, and which are frequently used in stone walls for fencing. The stones varied in size from such as would just go into the wall, down to those of a few ounces weight. Many who saw the wall going up said that the stones were too large. But we can see no reason for using small stones in preference to large, except for filling up the interstices, and in that way save mortar. Certainly there can be no economy in breaking a

rock to pieces, merely to stick it together again. The sand was such as is used by the masons for making lime mortar, and was gathered from the roads and small streams. That from the streams being best, as it is freer from clay. Coarse sand is also better than fine, as it takes less lime to form a strong mortar. The lime used was the Thomaston, though any other would have answered the same purpose.

Our house is of one principal story with a basement. The basement story is about one half under-ground, and is fitted up as a dining room, kitchen, &c. The height of the wall is nineteen feet from the foundation to the eaves. The wall of the basement is one foot thick, that of the main story nine inches. The foundation was commenced on the 2nd of November, 1854, and the wall was finished on the 20th of January 1855. Most of it was therefore put up in pretty cold weather, and during the short days. But we would advise others to build in warmer weather. Of course, during very cold weather the work could not go on, and so it required a longer time than would have been necessary in a more favorable season.

We have been living in our house since last March. The walls are dry in all kinds of weather, and free from cracks. The outside is covered with ordinary stucco, which adheres to this kind of wall better than it does to brick, and forms a very neat finish. The mortar for plastering the inside wall of the basement is made with some hydraulic lime (cement) mixed with common lime and sand mortar. The basement floor is of the same material on a thin pavement of gravel. There is also some cement in the stucco on the outside wall immediately around the surface of the ground.

We have perfect confidence in a wall put up in this way. The cost also compares favorably with that of other modes of building.

From the following statements any one can form a tolerably correct estimate of the cost in any part of the State. The stone for our house had to be hauled on an average, about a half a mile, or perhaps three quarters. The sand was hauled near two miles. The cost for sand and stone was one cent per cubic foot of the finished wall. The lime was obtained before the opening of the N. C. Railroad. It cost three dollars per barrel delivered at Chapel Hill. One barrel was sufficient for seventy-five cubic feet of wall; making the cost for lime four cents per

foot. Common laborers were employed at seventy-five cents per day, they boarding themselves. They put up twenty-five cubic feet per day to the hand; making the cost for putting up three cents per foot. To this must be added the cost of plank for boxing, and something for hoes, buckets, &c.; in all amounting to not more than a quarter of a cent per foot; thus making the entire cost of the wall for labor and materials, amount to 8 cents and a quarter per cubic foot. Brick would have cost 18 cents per foot. Of course the items named above will vary considerably in different places, but we believe they will generally fall below the prices we paid. The lime alone, at the rate it may be obtained in many parts of the State, would greatly reduce the cost. The days being short and cold the hands could not do anything like a fair day's work. In good weather, forty feet to the hand per day would not be too much to expect. And in putting up a large building, the employment of horse power to raise the stone and mortar to the wall would effect a considerable saving.

There are some considerations which recommend this mode of building wherever the materials for it are found.

1. You obtain in this way a durable wall, superior even to brick unless they are of the very best kind. It is the nature of all lime and sand compounds to become constantly harder by age; so that time improves this kind of wall, whilst it destroys most others. It may also easily be rendered proof against the ravages of fire.

2. A house built in this way is warmer in winter and cooler in summer than a wooden building, equalling in this respect a good brick wall, and superior to the latter in preventing dampness within.

3. Another advantage, and one which recommends it especially to farmers, is that it may be built with very little assistance, except what may be furnished by the ordinary farm hands. Any person of good judgment, capable of managing a farm could put up this kind of wall for himself. For a plain farm house he could do nearly the whole of the work, even to the finishing off, especially if he have a mechanical turn as is often the case. Or by building only the walls with his home force, he can the better afford to pay carpenters and plasterers for finishing off a handsome dwelling. For the same wall put up in this way may be completed in

any degree of simplicity or magnificence to suit the taste or means of the owner. It is not necessary that all the work be done at once. The walls may be put up, and with a small amount of carpenter work a comfortable dwelling is provided for the time, which may afterwards be completed when the requisite means are obtained.

4. The same material is well adapted to the building of the finest villa, or the plainest laborers cottage, and it may be used for building barns and outhouses. To make it generally used over the country, we believe it is only necessary that it should be once introduced. Although for some it is easy to do anything they have heard of any one else doing, it is not so with the majority. Most persons are slow to believe that the new can be better than what is old and well tried.

It will not be easy in the course of a short article like this, without drawings, to give full directions for putting up the "gravel wall." For forming the boxes we used inch plank, one foot wide. Plank an inch and a half thick would have been better. Cleats were nailed on the plank at intervals of four or five feet to keep them from warping. The boxes were made the width of the required wall, and held together by wooden pins, with a head on one end and a hole in the other to receive a key. To keep the box plank steady, clamps made of two inch scantling were placed on the boxes. Each clamp was two feet long, so that it embraced two boxes, when placed the one immediately over the other. The pins passed through the clamps and boxes. Having formed a box the length and width of the wall, it was filled with the mortar and stone, and then the second box placed on top of the first, and also filled. The material in the first box having had some time to harden (from two to four days according to the weather) the box was taken off by drawing the pins. This box was then placed above the remaining one and again filled. By this plan, it only requires enough of plank to form two boxes the length of the wall. The principal difficulty in putting up this kind of wall, is in keeping it straight and perpendicular. The boxes, unless they are made pretty strong will give, when filled with the wet material. Mr. O. S. Fowler of New York, when building his house, set up scantling and nailed the box plank to them. By that means it is easier to keep the

wall perpendicular, but as the scantling are worked into the wall, they must weaken it by partially cutting it in two. As much mortar was made at one time as could be put up in a day. The smaller stones were mixed with the mortar in the bed, the larger stones were put directly into the boxes.

This mode of building is sometimes called new, but that is entirely a mistake. In the life of Gen. Oglethorpe, presented to the Georgia Historical Society, by Thomas Spalding, Esq., and published in the first volume of the "Collections" of the Society it is stated that this material was much used by Gen. Oglethorpe in the erection of military and other buildings. We will here introduce a paragraph from the "collections" which will show that both the material and the mode of putting it up are essentially the same as that we have recommended above.

"Tabby (not tappy, as some have named it) is a mixture of lime, sand and shells, or lime, sand and gravel, or lime sand and stones, in equal proportions, with an equal proportion of water to mix the mass. This mass well mixed together, is placed between two boards, kept apart by wooden plugs, with double heads, of a length proportionate to the thickness of the intended wall. These planks or boards may run all around your building, rising about one foot at a time. When your tabby mass, being placed between these planks and settled down with a spadé or rammer, has two or three days to harden, the planks are taken away by drawing out the plugs. You may generally with safety go with this wall two rounds or feet a week in the summer, covering over your work in stormy or rainy weather. The task I have required in this work is thirty cubic feet per day, to mix the material, fill in and settle down within the plank moulds. This is about equal in quantity of wall to six hundred common bricks, the laying of which alone, exclusive of the cost of the bricks, would be quite equal to the mixing and placing the tabby wall, moving the boxes, &c., &c. Nor is there any comparison in beauty or durability between a brick wall and a tabby wall so constructed, after time has been given for cementing the matter. The whole becomes a mass of stone almost imperishable under the operations of time, and only to be re-dissolved by fire. It is supposed from Roman story, that the walls of Saguntum around

which Hannibal and the Scipios battled, were built of tabby. It is known that there are many walls of this material in Spain, which have resisted the elements for many centuries. John Gray Jackson, the late Consul General in Morocco, speaks of a tower at Mogadore, which is known to be eleven hundred years old, and which is now as firm and beautiful as when first erected. This was the material which General Oglethorpe employed in all his civil and military works; and why men coming after him did not continue to do so, I know not."

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SOUTH CAROLINA STATE AGRICULTURAL SOCIETY.—The Legislature of South Carolina, at their recent session, passed an act granting an annual appropriation of five thousand dollars to the State Agricultural Society of S. C. The act also requires the society to make an annual report to the Legislature, exhibiting the nature of its operations, and the manner in which the appropriation has been expended. An appropriation of five thousand dollars to our State Society would enable it to offer premiums that would ensure a full exhibition at our annual Fairs.

◆◆◆◆◆ Exchanges.

"Frank Leslie's Gazette of Fashions and the Beau Monde." for the month of January, has been duly received, and is marked with its usual taste and elegance. The illustrations of *les modes*, are superb, and are accompanied with the most interesting traits of recent intelligence on the subject. The ladies will know how to appreciate it better than we can describe it. The price of this splendid monthly is *three dollars* per annum. Address FRANK LESLIE, 12 and 14, Spruce street, N. Y.

"Le Bon Ton, Journal des Modes, and Monthly Report of Paris, London, and New York Fashions" for January 1856, also lies before us. This also is an elegant periodical, devoted to the Parisian Goddess. It is embellished with beautiful fashion plates, and descriptive letter press admirably executed. Published monthly by S. T. Taylor, No. 407 Broadway, N. Y. Price \$5 for monthly numbers; and \$3 for every two months, and 50 cents per single copy, with two patterns.

Arthur's "Home Magazine" for February, is a good number of an excellent and very cheap

periodical. The reading is varied and of a pure character, and the illustrations numerous and pleasing. In a note, Mr. Arthur announces Miss VIRGINIA F. TOWNSEND, a popular writer, as assistant editor. Her services will commence with the March number. The terms of the Home Magazine are \$2 a year in advance. Address T. S. ARTHUR, & Co., 103, Walnut street, Philadelphia.

The "New York Observer," an old friend, now comes to us much enlarged, and improved in view of the increased demands of the day. It is printed on a double sheet, 52 inches by 39, and claims to be *the largest Newspaper in the world*. It is published weekly in New York, by SIDNEY E. MORSE & Co., and is in its 34th volume. It is divided into two principal departments, Religious and Secular, and each of these is judiciously arranged under distinct heads, embracing all the most important interests of society. The Scientific, Agricultural and Commercial departments have been recently added. In religion it is liberal, evangelical, orthodox, conservative, and independent, and on all social, moral and literary topics always interesting and instructive. Price \$2.50 per annum.

PETERSON'S LADIES NATIONAL MAGAZINE.—This cheap and elegant monthly for February, is on our table in advance of all others. We have often had occasion to speak of this Magazine in high terms, and the more we see of it the better satisfied are we that the praise was well merited. The engravings, fashion plates and illustrations, are gotten up in very fine style. It is edited by Mrs. Ann S. Stephens and Charles J. Peterson. Price only \$2 a year. Address, Charles J. Peterson, 102 Chestnut street, Philadelphia.

We are indebted to the American Publishers, Leonard, Scott & Co., 79 Fulton Street, N. Y., for the December number of BLACKWOOD'S MAGAZINE, which we are glad to enter upon our list. This celebrated monthly is still conducted with much of the spirit formerly infused into its pages by Prof. Wilson. The contents of the present number promise us some pleasant reading. Blackwood is one of our most highly prized companions, and we would not dispense with it for any slight consideration.

Our table also acknowledges the receipt of a copy of the "Transactions of the 6th annual

meeting of the Medical Society of the State of North Carolina, held at Salisbury N. C., May 1855." Printed in a pamphlet of 40 pages by Fulton & Price, Wilmington, 1856.

THE HOMESTEAD is an excellent weekly agricultural journal, of 16 large quarto pages, beautifully printed on good paper. It is published by Andrew Stark, Hartford Conn., at \$2 a year, in advance.

THE VIRGINIA FARMER, is a new agricultural paper of 8 quarto pages, published by Wm. G. Stevens, Harrisonburg Va., monthly, at the low price of fifty cents per annum in advance. The Farmer, from the specimen before us, will do good service in the cause of agriculture.

THE AMERICAN AGRICULTURIST, New York city, is now in its fifteenth volume. This is one of the standard agricultural papers of the country. It is a large quarto of 32 pages, and issued monthly by Allen & Co., 189 Water St., N. Y., at one dollar a year.

The February number of GRAHAM'S superb American Monthly has arrived just in time to be acknowledged. We have only time to say that it is executed in its usual elegant and elaborate style, and appears to be in every respect worthy of its well-established fame.

GODEY'S LADY'S BOOK for the month was received in good time, and greeted by the ladies with their usual ardor. It is full of all sorts of elegant attractions, too exquisite for description, and too numerous for detail. Suffice it to say that in adaptation to the female eye and taste Godey is far ahead of all competition.

New Books Received.

A MUCK MANUAL FOR FARMERS: A treatise on the Physical and Chemical properties of soils; the chemistry of manures; including also the subjects of composts, artificial manures and irrigation, by SAMUEL L. DANA. Fourth edition, with a new chapter on Bones and Superphosphates. C. M. Saxton, & Co., New York, publishers.

THE FIELD BOOK OF MANURES; or the AMERICAN MUCK BOOK; treating of the nature, properties, sources, history and operations of all the principal fertilizers and manures in common use, with specific directions for the preparation, preservation and application to the soil and to crops, as combined with the leading principles of practical and scientific agriculture, by D. J.

Brown, author of the *Sylva Americana*, &c., &c., &c. C. M. Saxton, & Co., New York.

THE STABLE BOOK, being a treatise on the management of horses, in relation to stabling, growing, feeding, watering and working, construction of stables, ventilation, stable appendages, management of the feet, management of diseased and defective horses, by John Stewart, Veterinary Surgeon, Professor of Veterinary Medicine in the Andersonian University, Glasgow. Adapted to American food and climate, by A. B. Allen, editor of the *American Agriculturist*, and published by C. M. Saxton, & Co., New York.

THE HOLLY TREE INN.—A pamphlet of 38 pages in seven chapters, by Charles Dickens, published by T. B. Peterson, No. 102 Chestnut Street, Philadelphia, price 12 1-2 cents, for which price it will be sent by mail, free of postage. The name of Dickens is a sufficient guarantee, that the pamphlet is well worth the price.

Communications.

For the Carolina Cultivator.

MR. EDITOR—DEAR SIR: In haste I correspond with you once more. The article that I shall now treat upon is fire-fanged manure, which is manure that has heated too much.—I believe that thousands upon thousands of dollars are lost to the people of North Carolina and elsewhere annually by this one thing. The reason that I speak thus, is that I have tried it and am satisfied. I desire all persons having their doubts about it, to do the same. My experiment was this, I had manure which had fire-fanged badly, and learning from the *Farmer's Journal*, that such manures lost from fifty to sixty per cent. of their fertilizing qualities, I was determined on trying it, to see whether or not these things be so. The ground, that I selected for my experiment, was a potato patch; the potatoes had been set out about two or three weeks and were taking a very pretty start to grow, I took the dirt away from around the slip until I came near the roots; I then took of this fire-fanged manure enough to put about a full pint at a hill. In this way I manured a row, I then manured a row with manure which had never heated,

putting the same quantity by measure. The stable from which I took the latter was one which we did not use except when we had company, or some such time, and was so situated that every heavy rain the water would run in, but not in quantities sufficient, I don't think, to wash any of the strength away. I put of this manure an equal quantity with the other, I then thought as I was experimenting I would try some other manures and test their relative strengths, to see which was the best, &c. I had heard it said that it was not good to mix lime with stable manure, that the lime expelled the ammonia, I had also heard it said that ashes possessed pretty much the same qualities as lime, and so I thought if lime would expel the ammonia, ashes would also, so I mixed ashes and stable manure half and half for one row, I then manured one row with ashes, I put on about a bushel of mound on each row; the rows were about thirty yards long, I then manured a row with hen-pen manure. One with mound from under a house. One with mound dug up in a smoke house.—One with mound out of the back of an old chimney and one with muck from a ditch. In all I had nine different varieties, and now reader which of the nine do you think beat. They were all tended alike and tended well. But owing to my failure in slips, they were not set out until harvest; it rained too hard to cut wheat on that day, so we turned in and set out the potatoes. The way I failed I will here state: I had heard of people in Orange cutting their potatoes and putting only a piece in a hill and making good potatoes. I thought I would try it, thinking by having fewer slips in a hill to have better potatoes you know. But I cut mine too small or something, there did scarcely one in twenty come up. But as luck would have it, one of my neighbors had a bountiful plenty of slips, and after he got done planting he gave me his bed. With a good drawing which was on harvest day I set out my entire patch. These rows were not suffered to be touched until fall, when they were dug, and the potatoes of each row put in its own row, I then weighed them accurately. The row manured with dirt from under an old house, beat all the others. The potatoes were fine. This manure came from under an old house which had lately been torn down and removed. The manure came out of the sink from which dirt

had been taken to form the hearth. There were likewise some holes about the hearth during the old house's sojourn, so that it is probable that there were ashes mixed with the mass. The next best was hen-pen manure; it is probable that the hen-pen manure was not pure but contained a mixture of dirt. The next best was the ashes and stable manure mixed. The next best was ashes. The next best was manure dug up in a smoke house. This row, though, did not have a fair chance with the others.— This dirt would have been salt enough no doubt for any purpose for which it could have been desired; but in addition to this I put in more salt for twelve hills, the effect of which was that it killed every one of these ten or twelve, as dead as a poker, so that row did not have a fair chance with the others. This dirt was composed of ashes which were formed in smoking the meat and dirt dug up which had caught the dripping of the meat, &c. This row would probably have been as good as any I had, had it not been that I used more salt on those ten or twelve hills. The next best was the stable manure which had never heated.— The next best was muck. The next dirt from an old chimney; from what I had learnt by reading, this row did not turn out as well as I expected; I had a tenth row manured with much muck, which was a little the best row I had; there was about four times the quantity used as of the other manures. Last of all was the row manured with the fire-fanged manure; every row I had beat it, I likewise weighed a row which I had not manured, only as I broadcasted it, I put on the patch eleven loads, if I mistake not, which I broadcasted. The land was broken deep too, being sub-soiled. Well, I could not see, that this fire-fanged manure helped the cause one bit. There was a slight quantity in this row more than my steelyards would draw at one time, but being so little, I would not weigh a second time; there was likewise of the row not manured, a small quantity more than the steelyards would draw at one time, but being so little, I would not weigh that, but I thought of the two, the row with no manure was rather the best. So if my experiment was correct, instead of losing from fifty to sixty per cent. by fire-fanging it loses one hundred exactly. By this small experiment, I was wonderfully struck at seeing the powerful effects of manure. So I say, farmers double

your products by using this fertilizer. The fire-fanged had none effect; the row right beside it, manured with unheated manure nearly doubled it; that from the back of an old chimney increased the product thirty-three and a third per cent. Ashes nearly doubled. Ashes, and ashes and stable manure mixed were nearly equal, being but half a pound difference in the rows which was in favor of the ashes and stable manure. The manure from under a house increased the yield about an hundred and fifty per cent., i. e., over doubled but did not treble. Hen-pen about doubled. Smoke-house increased the product eighty three per cent. Muck about fifty per cent. Much muck, four or five times the usual quantity, one hundred and fifty per cent. Some of these potatoes set out late as they were, weighed as much as three pounds.

So farmers avail yourselves of the power of manure, make all you can. Do not suffer your stable manure to heat, if you do, in my opinion it is not then worth carting in the field.— My manure which fire-fanged I had thrown up in a large pile to heat and destroy the oats that were in it, to keep them from being troublesome in the crop, thinking also by so doing to improve the manure, having learned that fermenting stable manure helped it. Let it heat not at all. My plan for working stable manure, were I to be governed by my best judgment would be this, to haul muck, or rich earth, if muck is not convenient, and compost it with the stable manure in the proportion of about three of muck and one of stable manure; mix it well and then pen it out in the weather, taking care to have a layer of muck on the out side and likewise upon top to keep the strength from losing. The rain that falls will tend to ferment and rot the mass according to my now idea of ferment. The pen, I think, should be made on gradually sloping ground. Have a ditch and an embankment on the lower side to catch any of the strength of the manure that may happen to pass off in water. The water and sediments the ditch will catch, can occasionally be poured over the pile. I think manure put up thus would go through the fermenting state without injury to the manure; also, that, that valuable salt, called ammonia, will become fixed, so as not to be likely to be lost by evaporation, or otherwise. If I am wrong in these ideas, I wish to be better informed by some

farmer or others of more practical knowledge than myself. So in conclusion, farmers, try it. Double your products.

I wrote you a small sketch of some of these ideas whilst in Norfolk last summer. Probably you did not think them worth publishing, and these probably may not be much better. But one thing I know I have received great benefit from reading the experience of other farmers, and I am willing if I know any thing to contribute something in turn. Many of the farmers, though in this day and time do not even take an agricultural paper, and many of those that take them do not read them as they should; and then again out of those that read them, but few practice. The science of agriculture, if I may call it a science is much behind what I think it should be in this day and time. It is in my opinion not near equal with the other arts and sciences. And why is it? People in my opinion till too much land, and then think too little about the manner of tilling—what the crops require, &c. Would it not pay to go into the woods and burn ashes largely? Cut down large dead trees, then start a fire upon them from top to butt, and keep piling on more wood as it burns down. Then take those ashes and mix with muck in the proportion of one of ashes to about ten of muck. Most farmers have as much muck as they can manage, or if they have not, rich earth would probably do as well. Do this in the winter time so that the muck and ashes would have time to mix and undergo a kind of chemical action.

P. S.—I set down the weights of each row of those potatoes and have it now before me, but did not think it necessary to give the weights. I likewise set them down when I manured them, so as to know with what I manured each row.

With much desire for the success of the Cultivator, I remain,

Truly yours,

BRYAN TYSON.

For the Carolina Cultivator.

MR. EDITOR: I have seen some pieces on Secret Ditching. I have pursued a different plan. My plan is, after the ditch is cut to the springs and in the lowest place as small as a hand can work in conveniently, I fill it up with rails, putting the largest ones in first, and fill the ditch up within eight inches of the top, mak-

ing the cracks as small in the top layer of rails as I can. Should there be any cracks too large, I have pieces cut to fit them. By filling it with rails the water can come in at the sides better than any other way that I have seen tried. I have several miles of ditching filled this way, some of them were done in 1837: they all continue to draw well—not one has ever been choked up yet.

Respectfully yours,

LEWIS B. PUGH.

Johnson's Mills, Pitt Co.

Miscellaneous.

Agricultural Journals.

If we may be allowed to say so, without incurring the suspicion of undue self-esteem, we do not think this class of publications are sufficiently appreciated. They encounter at the very outset the popular prejudice against *book farming*. We cannot now undertake to discuss the unreasonableness as we esteem it, of this prejudice, though we expect to have something to say in its behalf before the year is closed; suffice it at present to remark that it is certainly no valid objection to a good idea, that it is found in the pages of a book or the columns of a newspaper, and an agricultural journal should be merely a repository of good ideas on the subject of agriculture. If erroneous opinions find their way into its columns they certainly are in the very best place to meet exposure; if, on the contrary, its teachings are correct, no better vehicle for communicating them to the public, than the pages of a newspaper can be found. Unfounded as this prejudice is, however, it is a general one, and every agricultural journal must encounter it; some to outlive it, many to sink under it.

It is a misapprehension of the mission of such a paper to restrict its objects to instructions in the art of husbandry. The cultivation of our staple crops, the rearing of stock, and the improvement of the soil, are subjects of prime importance, but they do not constitute the exclusive material for agricultural journalizing. The social and commercial relations of the planter are no less important, nor less legitimate subjects of inquiry and discussion. The

social statue of the pursuits in the family of professions, and not the relations of its individual members, is what we mean by the first; and by the latter interest, it will be understood that we refer to all that affects the trade in those commoditiss which are produced by the planter. It is the aim of an agricultural journal to place the planting community where its importance demands it should stand, among the first, if not the foremost, in the catalogue of pursuits; and it should not be less its aim to advise its readers of all that concerns the commercial value of its products. We make crops for the money which they yield, and our profits are not more dependent upon the skill with which we cultivate the soil, than upon the judgment with which we dispose of our productions. To this end it is as important that we should be advised by the influences which govern our markets, as that we should be informed of the principles which control in the cultivation of our crops.

It is regarded important that various other public interests should be represented by the press; why should it not be equally essential to the planting interests. The mercantile, the manufacturing, the professional vocations, all have their organs; have the agriculturists no common cause, no esprit de corps which demands public expression? It should be the aim of the agricultural journals to cultivate among their readers that community of sentiment—that feeling of brotherhood among those engaged in the same pursuit, which is thought to be so essential to the prosperity of other vocations. If they discover no new principles in agriculture, if they add no new instructions in the art of husbandry the presses devoted to the interests of agriculture will have done a great deal in giving dignity and respectability to the calling. When our fields are made the subject of study as well as cultivation, when our country-seats are made the home of intelligence and beauty, and refinement, a new and powerful element of prosperity, will be added to the agricultural pursuits. Our population will then become permanent, and men will seek in the rural arts, the most congenial walks of life.—*Soil of the South.*

Cows that are well sheltered during winter, require less food, and give more milk.

Super Phosphate of Lime.

I make my own, and I have used a good deal. Every farmer can do the same, and save money by it, and be certain of having a good article. I have a mill for grinding bone; if any of my readers have not access to one, they can buy ground bones in any of our cities, costing more, however, than if they ground their own. I buy the bones in the rough for \$10 a ton. When ground they cost me about fifty cents per bushel. With your bones ground you will want one carboy of sulphuric acid, for every five to eight bushels of bones you wish to dissolve; the finer ground the bones are, the weaker the acid may be. Take the half of a molasses hogshead, and, setting it under cover, put into it say ten or twelve buckets of water, and then empty into that a carboy of acid, taking especial care that none of it splashes on your clothes, as it is liable to do; if any gets on your hands place them for a moment in water; then put in your ground bones slowly, lest the effervescence that takes place overflows; stir in all you can, say seven bushels; let it stand at least three weeks, six if possible, stirring it up once in a while. When you wish to use it, riddle on a floor two hundred pounds of the best Peruvian guano, on this put four bushels of your dissolved bones and mix thoroughly together, then add in dry sawdust, mixing it well until dry enough to sow by hand. If sawdust cannot be had coaldust is the next best thing, or dry earth, or anything that will absorb moisture, except ashes. Ashes if mixed in would neutralize all that you had done, and put you back just where you started, dry bones. Prepared as I have here stated, you will have a fertilizer which, after repeated trials, I have found to be the best of any manure I ever used for both corn and wheat, acting on all kinds of soil with wonderful effect; and although not so nice to look at as what you buy in bags in our cities, has superior advantage of purity and economy. Your sulphuric acid you should buy from the chemists for two cents per pound; a carboy, I think, contains about one hundred lbs. You can figure up for yourselves the cost of your prepared phosphate.

When mixed as stated, I sow of bulk to the acre, what is equivalent to one hundred bushels of bones and one hundred pounds of guano.—As you cannot make any calculation in sowing,

for the amount of sawdust contained in that quantity, you must make up your pile for your field. For ten acres, say, you would want twenty bushels of bones and one thousand pounds of guano, your sawdust of course added to this. I have a way of my own for sowing, which I have found answers an excellent purpose. Putting a moderate load in a one-horse dearborn, I put my man wheat-sower in the tail, on his knees, on the stuff, and taking the lines, I drive round and round the field, keeping all the time about three feet from the last track, while my man sows constantly with his hand behind the wagon. I have found that this puts on just about the quantity I want, and puts it on well and expeditiously. I might say here, that I never sow it on the sod, generally after the first harrowing, although once I applied it after my corn was up, with the happiest result.

If this fertilizer cannot be made at home, I would unhesitatingly prefer that sold in our cities to Peruvian guano.

DELWYN.

Chester County, Pa., 1855.

Carrots for Feeding Poultry.

We find the following in the *Rural New Yorker*:

"EDS. RURAL:—I have never seen anything in your paper recommending carrots as food for poultry. I feed them to my fowls every day, and find it profitable to do so. In the present high prices of grain, etc., it is worth while for people to use any substitute that will answer the same purpose. I venture to say that those who have fed their fowls on carrots, chopped fine, will not readily discontinue the practice. The chopping is most easily done with a common sausage meat cutter, costing about \$3. These machines will pay their entire cost, in most families in a single year, in various labor-saving ways. A couple of boys, in a single evening, could easily cut a barrel full of carrots, which if fed to hens, mixed with meal, scraps, etc., would be worth much more than the same value in grain at present prices.

At the conversational meeting of exhibitors at the last National Poultry Show, carrots were recommended for general use, as better than anything else for laying hens; "chemically considered," it was said "they contain more of the substance necessary to form eggs than any

other food." One of the speakers went so far as to assert that one bushel of carrots contains more food than a *hundred cart-loads* of turnips. This may be a *few* cart-loads too many, but I think their value as an article of food for almost everything in the farmer's barn and barn yard, or his family even, is not generally overrated, else we should see more of them raised.

One reason, doubtless, why no more are grown, is the labor and expense necessary to raise a good crop. I think the usual method of raising carrots can be improved so that the crop need not cost more than one-half what it now does. In my own practice I have managed to dispense with a good deal of labor which I once thought necessary, and I still think there is room for improvement.

Possibly you may hear from me again on this subject. Farmers, now is the time to enrich your own minds and the columns of the *Kural*, by writing out your experience in farming, and do not forget to contribute your own mite, while profiting by the contributions of others, remembering that "the withholding more than is meet tendeth to poverty." W. C.

EPILEPSY, OR FALLING FITS.—We believe we cannot do our readers a more important service, than by again calling their attention to that most remarkable preparation, discovered by Dr. Seth S. Hance, of Baltimore, Md., which possesses the power of alleviating and curing that horrid visitation of man—Epilepsy, or Falling Fits. In recommending this preparation to our readers, we do so with a conviction that we are not degrading our columns to puff a common patent medicine, but are placing before them a discovery, which, if fully known, would probably do more to alleviate human suffering, than any invention of modern times. Dr. Hance, in asking us to notice his preparation favorably in our editorial department, has sent us for perusal a number of letters from persons who have used his Pills, and have been cured thereby. All of them speak in the most grateful and eulogistic terms. One great advantage this medicine possesses is the fact, that it can be transported through the mails, thereby affording every one an opportunity of dealing directly with the inventor, and also precluding all possibility of being imposed on by a counterfeit or spurious imitation. Dr. Hance pays the postage on his Pills to any part

of the country, and will forward them by return of mail, on the receipt of a remittance.—His prices are as follows: One box, \$3; two do., \$5; twelve do., \$24. All orders for the medicine should be addressed to **SETH S. HANCE**, 108 Baltimore street, Baltimore, Md.

WHEN MACHAON, the Greek Physician was slain, Homer said of him, "a good Physician is worth as much as a whole army." Then a good medicine like *Ayer's Cathartic Pills*, is worth a great deal more, because it cures as well, works wider, and lasts longer. The circle of the best Physician's labor must be narrow, while such a remedy is available to all—can be had by every body, and is worth having.

MLANE'S WORM SPECIFIC.—The following, from a customer, shows the demand which this great medicine has created wherever it has been introduced:

BLOSSBURG, Tioga Co., Pa., }
March 30, 1850. }

Gentlemen: In consequence of the great consumption of your "Worm Specific" in this place and vicinity, we have entirely exhausted our stock. We should feel obliged by your forwarding, via Corning, N. Y., 20 dozen, with your bill, on the reception of which we will remit you the money.

From the wonderful effects of said "Specific" in this neighborhood, there could be sold annually a large quantity, if to be had, (wholesale and retail) from some local agent. If you would compensate a person for trouble and expense of vending, I think I could make it to your advantage to do so.

Yours, respectfully,

WM. M. MALLORY,
Per W. E. PORTER.

Messrs. J. KIDD & Co.

27 Purchasers will be careful to ask for **Dr. M'Lane's Celebrated Vermifuge**, manufactured by **Fleming Bros. of Pittsburgh, Pa.** All other Vermifuges in comparison are worthless. Dr. M'Lane's genuine Vermifuge also his celebrated Liver Pills, can now be had at all respectable drug stores. None genuine without the signature of **FLEMING BROS.**

NO FAMILY SHOULD BE WITHOUT THEM.—We speak of M'Lane's Liver Pills, which have become an indispensable Family Medicine. The frightful symptoms which arise from a diseased Liver manifest themselves, more or less, in every family; dyspepsia, sick headache, ob-

struction of the menses, ague and fever, pains in the side, with dry, hacking cough, are all the results of hepatic derangement—and for these Dr. M'Lane's Pills are a sovereign remedy. They have never been known to fail, and they should be kept at all times by families.

DIRECTIONS.—Take two or three going to bed, every second or third night. If they do not purge two or three times by next morning, take one or two more. A *slight breakfast* should invariably follow their use.

The Liver Pill may also be used where purging is simply necessary. As an anti-bilious purgative, they are inferior to none. And in doses of two or three, they give astonishing relief to sick headache; also in slight derangements of the stomach.

Purchasers will be careful to ask for **Dr. M'Lane's Celebrated Liver Pills**, manufactured by **Fleming Bros. of Pittsburgh, Pa.** There are other Pills purporting to be the Liver Pills, now before the public. Dr. M'Lane's genuine Liver Pills, also his celebrated Vermifuge, can now be had at all respectable drug stores. None genuine without the signature of **FLEMING BROS.**

AGRICULTURAL PROFIT.—The Leesburg (Va.) Washingtonian states that Captain George Kephart purchased a tract of land in Loudoun county, Va., four years ago, which cost him five dollars per acre; from a field of this land, containing 100 acres, last fall he got 400 bushels of corn, worth at least five dollars per barrel. After cutting off the corn he put in wheat, sowing two tons of guano on it, which yielded him 2,10 bushels and some pounds last harvest, worth two dollars per bushel. In two dollars per bushel. In two years, on this field, which cost two years ago five hundred dollars, he got upwards of six thousand two hundred dollars.

IMPORTANT, IF TRUE.—A citizen of Orange firmly believes and maintains the theory that the Chinch Bugs are *eating up the Joint Worms!* If this be so, then there is good reason to hope and expect that the Chinch Bugs will, in their turn, die of *dyspepsia*; for they are by nature *vegetable* feeders, and animal food will hardly agree with them. It is to the farmer a delightful operation truly, if the Chinch Bugs eat up the Joint Worms, and get poisoned by doing so. It would be another version of the game played by the cats of Killenny, which according to the story, fought until they had eaten each other up.—*American Sentinel.*

Table of Contents.

Agricultural Journals.....	390
Agricultural Profits.....	393
Brahma Pootras as useful Poultry.....	383
Cultivation of Wheat.....	381
Carrs for Feeding Poultry.....	392
Communications.....	388
Exchanges.....	386
Gravel Wall for Houses.....	384
Important, if True.....	393
Medical Notices.....	393
New Books.....	387
Planting Ornamental Trees and Shrubs.....	369
Premium List of the N. C. Fair.....	373
South Carolina State Agricultural Society.....	386
Super Phosphate of Lime.....	391

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STATIONERY AND FANCY ARTICLES.—Consisting of Foolscap and Letter Paper, Note, Folio Post and Drawing Paper, Morocco, Tissue, Pith, Tracing and Marble Paper; Knives, Steel Pens, Quills, Wafers, Sealingwax, Pocket Books, Albums; Ink Powder, India, Indelible, Japan, Black, Blue, and Red Inks; Prints, Gold and Silver ever-pointed Pencils, Seals, Wafer Stamps, Sand and Sand Boxes; Scrap-Books, Visiting Cards, Card Cases, Gold and Silver Paper, Inkstands, Slate and Slate Pencils, Lead Pencils, Bristol and Ivory Boards, Chess Men, Maps, Battledores, Rules, India Rubber, Carmine Sauers, Newman's, Reeves's, and American Water Colors, &c.

N. B.—BOOKBINDING done, in all its various forms, with neatness and dispatch.

GARDEN-SEEDS.—To be had at the North Carolina Bookstore, Garden-Seeds, warranted fresh and good, crop of 1855, selected from the most approved Seedsmen and Gardeners in the Northern Country.

February, 1856.

tf

EAR AND EYE.

Deafness, Total or Partial entirely Removed.

DR. ALSOPHERT begs to call the attention of those suffering under a partial or total loss of the sense of hearing to the following facts: He treats diseases of the middle and internal ear with medicated rouches, such as is practised in the infirmities of Berlin, Leipsic, Brussels, Hamburg; and lately by most distinguished London Aurists, with the most wonderful success, indeed, it is the only method that has been universally successful.

The best proof of the efficacy of this treatment will be a reference to nearly nine hundred names, residents of the United States, Canada, New Brunswick and Nova Scotia, who have been restored to acute hearing, and not a single solitary case, to our knowledge, did we fail to effect either a partial or total restoration of the hearing when our advice and instructions were faithfully and punctually adhered to. Many who could not hear the report of a pistol at arm's length can now hear a watch beat at the distance of four feet. In case of mucus accumulation to the Eustachiana Tube and Tympanum, inflammation of the mucus membrane, nervous affections, diseases of the membrana tympani, called the 'drum,' or when the disease can be traced to the effects of fevers or colds, the use of quinine or mercurial medicines, gathering in the ears in childhood, &c., this treatment stands pre-eminent—when the auditory canal is dry and sealy, with little or no secretion; when the deafness is accompanied with noise in the ear; like falling water, chirping of insects, ringing of bells, rustling of leaves, continual pulsations, a discharge of matter, or when in stooping a sensation is felt as if a rushing of blood to the head had taken place; when the hearing is less acute in dull, cloudy weather, or when a cold has been taken, this method of treating the disease is infallible. In deaf and dumb cases, my experience warrants me in saying that if the hearing was good at any time, much can be accomplished. In the deaf and dumb schools at Leipsic, out of a class of 14, I succeeded in restoring four to acute hearing.

Dr. A. begs explicitly to state that in those cases he undertakes, he guarantees a successful result—complete restoration of the sense, or such a marked improvement as will be perfectly satisfactory, if his

remedies are faithfully applied and directions adhered to. Applicants will please state their age, duration of the disease, if matter issues from the external passage, if there are noises in the ears, state of general health, and what they suppose to have been the cause of the deafness. When the hearing is restored, it is expected that those in easy circumstances will contribute liberally.

All Diseases of the Eye.

Successfully treated by the application of MEDICATED VAPORS, &c., an infallible and painless treatment for diseases of the EYE, acute and chronic—Cataracts, specks, inflammation, film and weakness of vision, granulation of the lids, ulceration of the lachrymal glands, &c., &c. To the astonishing and gratifying effects of this treatment, the child, the youth, those of mature age, as well as those far advanced in life, all bear testimony to the wonderfully renovating, healing and soothing effects.

From the N. Y. 'National Democrat.'

Presentation to Dr. Alsophert.

Quite an agreeable affair came off last night at the Cooper House. Dr. Alsophert, who has been practising in this City for the past ten years, has been eminently successful in treating diseases of the Ear and Eye, to such an extent as to entitle him to the name of a public benefactor, was presented by some fifty of his former patients, with a pair of magnificent SILVER PITCHERS, as a sight of their esteem and gratitude to the man who had rendered each a most invaluable service. The pitchers bear suitable inscriptions, and are certainly highly creditable to the manufacturers as well as to the taste and generosity of the donors. Ed. E. Moyle, M. D., who was deputed to make the presentation, expressed the hope that Dr. Alsophert would long be spared to follow in the path he had chosen; and where he met with so much success; and to whom the medical profession was so much indebted, not only for his valuable work on diseases of the ear and eye, but for the many reformations introduced in the treatment of these delicate organs. It is a notorious fact, said Dr. M., that the practice of Aural Surgery is as a sealed book to nine-tenths of the Physicians, and the difficulty of those suffering from defective sight or hearing, in obtaining relief may be imagined. Dr. Alsophert assuredly deserves the highest praise both from the professional and unprofessional classes of society, for devoting his energies and talents to a branch of the healing art, where both fame and pecuniary reward are doled out most scantily. Dr. Moyle's remarks were eloquent and flattering in the extreme; the more appreciated by all who heard them, knowing they were well deserved. Dr. Alsophert feelingly and most appropriately replied; relating some of his experience since he commenced practice in the United States, and depicted in graphic and glowing language, the feelings of those who had been deaf from infancy, or who had forever groped in darkness, on their being restored to light and to the world of sounds. The feelings of the successful Physician are best expressed in Dr. Alsophert's own words:

"The merchant may feel proud and elated, when his schemes for amassing wealth have been successful; Kings may exult when their dominions have been extended; the Sculptor may gaze with admiration on the life like statue his chisel has created, the eye of the student may brighten, as the treasures of learning are exposed to his view, or the great truth of science dawn upon him; or the warrior's heart may bound with exultation, as his thundering squadrons shout the cry of victory, or when the wreath of laurel encircles his brow; yet all these emotions cannot exceed the pleasure of that hour when the Physi-

cian sees his efforts crowned with complete success; when he knows he has been the humble agent removing the cup of bitterness from his fellow man."

In deaf and dumb cases he said, generally considered incurable, he had met with the most flattering success; and while he confessed that a majority of such cases were incurable, yet he considered that the medical professions had been shamefully remiss towards this class of unfortunates. He asserted, and was ready to prove by overwhelming testimony, that every case of deafness can be cured, except where such a rises from malformation.

The Doctor has been the recipient of many similar tokens—one from Royalty itself—in the shape of a magnificent CLUSTER PIN, from the late Queen Adelaide, consort of King William the fourth—his success in this instance only being partial; otherwise Knighthood might have been conferred. Dr. A's Diary must be an interesting one, embracing many years of Hospital practice, and extending over a period of thirty years. We trust he will find time to publish it.

Medicines, Apparatus, &c., sent to any part at my expense and risk.

Address DR. ALSOPHERT,
No. 492 Broadway, N. Y.

Consultation fee Five Dollars.

Dr. A's work on diseases of the eye, the nature and treatment of deafness, and treatment of the deaf and dumb—illustrated with steel plates—price \$10.

Money letters must be registered by the Postmaster, such only will be at my risk.

Correspondents must enclose postage.

Feb. 1856.

CONGREGATIONAL SINGING.

UNQUESTIONABLY the best and most useful Hymn and Tune Book yet published for the use of Lectures, Prayer, and Conference Meetings, Social Worship and Congregational Singing, is

TEMPLE MELODIES.

This work contains five hundred Hymns and two hundred Tunes. It has been pronounced the best collection of sacred lyrical poetry ever issued, and doubtless embraces a larger number of the really favorite tunes already used throughout the length and breadth of the land than any other similar work. It has also the advantage of being furnished at a very low price, thus bringing it within the means of almost all congregations. TEMPLE MELODIES is already in very extensive use, and is constantly being more widely introduced. Letters from many clergymen, speaking in the highest terms of its utility, are in the hands of the publishers. We earnestly invite the attention of clergymen, and all others who are interested in securing a general participation in the singing exercises of Divine Worship, to this work.

To meet the wants of all, two editions of Temple Melodies are published—one in large, and the other in small type. In other respects, these editions are, page for page, precisely alike, so that they can be used together in the same congregation. The prices are as follows:

Twelve mo Edition, (small type,) cloth binding, per dozen,	\$5 00
The same, in leather binding, per doz.,	6 00
Octavo Ed., (large type,) cloth binding, per doz.	7 00
The same, in leather binding, per doz.,	8 00

Single copies sent for examination, on the receipt of 50 cents. TEMPLE MELODIES is published by

MASON BROTHERS, New York.

February, 1856.

21

FARMING IMPLEMENTS.

Little Giant Corn and Cob Mills, Nimble Giant, and various kinds and sizes, Burr Stone Grain Mills, Hay and Stalk Cutters, various sizes and kinds; Plows of all kinds—Wrought Iron Plows, and Plows with wrought points; Field and Garden Seeds; Gunno, Bone Dust, Super Phosphate of Lime, &c. Allens Improved Mower and Mower and Reaper, the best in America; also several other kinds, with a complete assortment of the most approved Farming and Horticultural Implements, of good quality and at low prices.

For sale by R. L. ALLEN,
189 and 191 Water Street, N. Y.

Jan. 1856.

FARMER'S HALL, RALEIGH, N. C.

The subscriber is general agent for the sale of Agricultural Implements and Farming utensils, Field seeds, Fertilizers, &c. &c. Almost all the articles brought to the late Fair are kept on sale and are offered at manufacturers prices with no cost of transportation, as they were brought free by the Railroad.

There is also a new fire proof Ware House on the lot, in which all articles on consignment are stored. The following are some of the articles brought to the late Fair: Horse Powers, Wheat Fans, Corn Drills, Field Rollers, Corn and Cob Crushers, Harrows, Cultivators, and Plows of every size and description.

JAMES M. TOWLES.

Raleigh, March 1, 1855. no. 1—tf

WITH THE 1st MONTH, JAN. NO., 1856,

Will commence the sixth volume of the FARM JOURNAL AND PROGRESSIVE FARMER, a Monthly Periodical of Thirty-Two Octavo Pages, devoted exclusively to the best interests of the Farmer, the Gardener, the Fruit-Grower and Stock Breeder.

DAVID A. WELLS, A. M., } EDITORS.
A. M. SPANGLER, }

IN presenting our friends with a prospectus for the coming volume, we reject the hackneyed style of puffing our paper, in saying that it is a *miracle* of cheapness and ability, &c. We merely ask that they shall try it for one year, leaving them to be their own judges of its worth. Our object and aim is, to publish a Journal, which shall be of real intrinsic value to the Farming Community; and subservient to nothing but the great interests of American Agricultural Progress and Discovery. We recognize no local or sectional feelings; we have no prejudices to overcome or soothe, or collateral interests to encourage, and our desire is to make the Journal and Farmer a national work. Arrangements of the most complete character have been made in regard to Illustrations; and our descriptions of Animals, Plants, Agricultural Implements, &c. &c., will be handsomely illustrated by Engravings executed in the best style of the art. We have also secured, (in addition to our editors) the services of gentlemen eminently competent both in science and practice, who have kindly consented to become regular contributors in the various departments.

We intend publishing condensed portions of the Prize Essays from 'The Journal of the Highland Agricultural Society of Scotland,' which are of accessible to many in this Country, and which are considered of the greatest value to the Agriculturist. Also, selections from the Journals of the Royal Agricultural Society of England, the Gardener's Chronicle and Agricultural Gazette, in which alone are to be found reliable reports of the celebrated experiments and researches of Messrs. Luwes and Gilbert, at Rothamstead,

of which reports, the whole series will be published in the forthcoming numbers. And as we are determined to leave nothing undone which will in any way tend to improve the character or appearance of the Journal, we will issue the next volume in an entire new dress, by which its typographical appearance will be greatly improved. It must also be remembered that no part of the body of the work is taken up with advertisements, which is an important feature where the numbers are kept for binding, and as for conundrums, childish jokes, idle tales, and trashy poetry, if these are wanted they must be sought elsewhere.

NOW IS THE TIME TO SUBSCRIBE.

OUR TERMS PLACE THE JOURNAL WITHIN THE REACH OF ALL.

Single Copy.....	\$1 00
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To whom all communications, whether editorial or business, should be addressed.

Specimen numbers sent gratis to those requesting it.

Feb. 1856.

1t.

Newbern Agricultural Warehouse.

WILLIAM H. OLIVER, & CO.,

GENERAL COMMISSION MERCHANTS, Newbern, N. C. Among our stock of Agricultural Implements may be found Ploughs, embracing some of the different kinds.

Straw Cutters of all the most approved kinds, varying in price from 5 to 50 dollars a piece; Corn Shellers, from 7 to 60 dollars a piece; among which may be found Readings celebrated Sheller, capable of shelling and fanning at same operation 2000 bushels corn per day. Also, the verticle cylinder, double and single iron and wooden spout shells.

Grain Fans from 15 to 54 dollars a piece, among which may be found the best Fans in use. Wheat Thrashers and Horse Powers complete, capable of threshing 300 bushels wheat per day. Cultivator's, Harrows, Horse Rakes, Horse flos, Improved Scythes and Cradles. Plough Castings of every variety: Farmers Batters and Cauldrons; Sausage Meat Cutters and Stuffers; Pure Peruvian and Mexican Guano; Chappells Fertilizer; Ground Plaster; Bone Dust; Prepared Guano, Pondrette, &c. &c.

Hos & Co's Warrented Circular and other Saws; Patent Leather Bading; Best Bolting Cloth; Mill Machinery; Mill Stones; Water Wheels; Premium Georgia Cotton Gins, and Gin Gearing, &c., &c., &c., all of which will be furnished on the most liberal terms by WILLIAM H. OLIVER & CO.

Newbern, January 1, 1856.

Strict attention given to the sale of all kinds of country produce.

TO PLANTERS.

THE UNDERSIGNED HAS BEEN APPOINTED Agent for the sale of "KETTLEWELLS CHEMICAL SALTS," or "RENOVATOR OF THE SOIL," acknowledged by those who have given it a fair trial, to be one of the best renovators of the soil, and fertilizers in the production of COTTON and CORN, that has ever been offered to the public; said to be far superior to Guano alone, in that it not only stimulates the growth of vegetation, but supplies durably a deficiency in the soil for the above productions, adding greatly to its yield. Pamphlets explanatory of the character of the article, will be furnished those desiring them, and orders for the Renovator will be promptly attended to by HENRY NUTT, Agent for the State of North Carolina, at Wilmington.

CONSUMPTION

SUCCESSFULLY TREATED BY INHALATION OF MEDICATED VAPORS!

BY JOHNSON STEWART ROSE, M. D.,

FELLOW of the Royal College of Physicians, and for years Senior Physician in the London Royal Infirmary for Diseases of the Lungs.

In this age of progress, medical science has contributed her full share to the general welfare, and that which shines resplendent, the bright est jewel in her diadem, is her last and greatest gift,

Medicated Vapor Inhalation,

In the treatment of Consumption and kindred affections. The most absurd notions, narrow-minded prejudices contemptible ignorance, and unblushing quackery, have long existed in the treatment of Consumption. Men of skill and reputation as physicians have prescribed numerous compounds to be taken into the stomach, to cure disease of the lungs, while the brazen-faced quack held up his nostrum as the only star of hope for the consumptive—if only enough of it were swallowed. The stomach, where no disease exists, being the receptacle of all this, is soon rendered unfit to perform its functions, and the health thus materially injured. All must see the absurdity, the positive injury of such a course: the disease is in the lungs, not in the stomach; then why, in the name of common sense, do you not apply medicine directly to the lungs? The advantage of Inhalation in Consumption and Throat Diseases is, that medicines in the form of Vapor are applied directly to the lungs where the disease exists; the stomach is thus left free to aid in restoring health, by administering to it healthy, life-giving food. There is no case so hopeless that Inhalation will not reach! The means, too, are brought within the reach of all, the manner of administering the Vapors being so simple, that the invalid is never required to leave home, where the bond of friendship and affection tends so much to aid the physician's efforts.

The Inhaling method is soothing, safe and speedy, and consists in the administration of medicines in such a manner that they are conveyed into the lungs in the form of vapor, and produce their action at the seat of the disease. Its practical success is destined to revolutionize the opinions of the medical world, and establish the entire curability of Consumption.

I earnestly appeal to the common sense of all afflicted with lung diseases, to embrace at once the advantages of Inhalation, and no longer apply medicine to the unoffending stomach. I claim for Inhalation a place amongst the priceless gifts that nature and art hath given us, that "our days may be long in the land," and as the only

Art of Refuge for the Consumptive.

A method not only rational, but simple, safe and efficacious.

To many of my professional brethren throughout the Union I tender my acknowledgements for their frank and manly course in testifying to the merits of Inhalation. I shall be pleased to co-operate with them in offering to the afflicted the blessings of Medicated Vapor Inhalation in the treatment of Consumption.

One word for myself, in answer to those claiming to have introduced the practice, and to the tribe of imitators who, with brazen impudence, claim it as their own. I both wrote in favor of Inhalation and practised it 15 years ago! The apparatus then used, with the medical agents employed, achieved only a partial success: I therefore did not claim for it then those miraculous powers which a long practice has since enabled me to give to it. Proof of this may be found in my work published in 1849.

Applicants will please state if they have ever bled from the lungs, if they have lost flesh, have a cough, night sweats and fever turns, what and how much they expectorate, what the condition of the stomach and bowels. The necessary medicines, apparatus, &c., will be forwarded to any part.

TERMS.—Five dollars consultation fee. Balance of fee payable when patients report themselves convalescent.

Recommendations by Physicians.

We, the undersigned practitioners in medicine, cheerfully and heartily recommend Dr. Rose's method of treating diseases of the Lungs and Throat, as the best and most effectual ever introduced into medical practice. Our convictions are based upon having several of our own patients, confirmed consumptives, restored to vigorous health, after a few months treatment by Dr. Rose. In the above named diseases the application of Medicated Vapors, inhaled directly into the lungs, may be justly considered a great boon to suffering humanity, rendering Consumption a perfectly curable disease!

Dr. Rose deserves well of the profession for his unwearied labors in bringing the Inhaling method to such a degree of perfection.

RALPH STONE, M. D.

JONAS A. MUTT, M. D.

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W. M. B. AUSTIN, M. D.

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DR. ROSE'S TREATISE ON CONSUMPTION.

Price One Dollar. Address

JOHNSON STEWART ROSE,

Office 331 Broadway, New York.

N. B.—The new postage law requires pre-payment of letters. My correspondence being extensive, applicants, to ensure replies, must enclose postage.

Money letters must be registered by the Postmasters—such letters only will be at my risk.

Oct. 1.

RINGLET RINGLETS! RINGLETS!

[[CURL YOUR HAIR.]]

AFTER MUCH STUDY, TOIL AND EXPENSE,
I have discovered the secret of making the most straight, smooth and coarse-looking hair, either to CURL or WAVE, at the option of the individual, in the most graceful manner, for life; thus enabling persons greatly to improve their appearance. Only three applications of my preparation are necessary. The preparation, which is not only perfectly harmless to the skin and hair, but renders the latter permanently silky and glossy, does not cost more than fifty cents, and the materials of which it is composed can be bought anywhere. I will send the RECEIPT for making it, to any person who forwards me ONE DOLLAR, by mail, pre-paid. Address

PROFESSOR H. N. ROWLAND,

Practical and Analytical Chemist, Philadelphia, Pa.
The RECEIPT and one bottle of the PREPARATION, sent free by mail, for \$2. 104f

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JOHN SMITH, Jr., Proprietor,

Formerly of Charleston, S. C.

MEALS, FIFTY CENTS.

Left hand side going South--Right hand side going North.

August 18, 1855;

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DR. STRONG'S COMPOUND SANATIVE PILLS

These Pills are entirely Vegetable, and are a most superior Medicine in the cure of all Bilious Complaints, Chills and Fever, Dyspepsia, Costiveness, Liver Complaint, Jaundice, Sick Headache, Scrophula, Salt Rheum, Fevers of all kinds, Loss of Appetite, Obstructed and painful Menstruation, and all lingering diseases.

As a Female Medicine they act like a charm, and when taken according to the directions, they never fail to cure the worst cases of Piles, after all other remedies fail.

They purify the blood, equalize the circulation, restore the Liver, Kidneys, and other Secretory Organs, to a healthy tone and action; and as an Anti-Bilious Family Medicine they have no equal. Price 25 cents per box.

Also

DR. STRONG'S PECTORAL STOMACH PILLS

A remedy for Coughs, Colds, Catarrh, Bronchitis, Croup, Whooping Cough, Asthma, Consumption, Nervous Diseases, Dyspepsia, Costiveness, Erysipelas, Disease of the Heart, Inflammation and Pain in the Chest, Back and Side, and all diseases arising from a deranged state of the Stomach, and to relieve the distress and bad feeling from eating too hearty food, in weak and dyspeptic habits.

WARRANTED TO BE PURELY VEGETABLE.

These Pills act as an Expectorant, Tonic, and Aperient. One 25 cent box possesses three times more power to cure diseases than a one dollar bottle of any of the Syrups, Balsams, or Sarsaparillas, that were ever made; and a simple trial of only one box will prove this important truth.

They promote Expectorations, Loosen the Phlegm, and Clear the Lungs and other Secretory Organs, of all morbid matter, and there is not another remedy in the whole Materia Medica capable of imparting such healing properties to the Lungs and Vital Organs as these Pills. They Cure Costiveness, produce a good, regular Appetite, and Strengthen the System.

Price 25 cents per box, containing 25 doses of Medicine. Call on the Agents who sell the Pills, and get the *Planters' Almanac GRATIS*, giving full particulars and certificates of cures.

Both kinds of the above-named Pills are for sale in Every Town and Village in North and South Carolina.

And at Williams & Haywood, Raleigh, N. C.
May 1855. 3—

GREENSBOROUGH MUTUAL INSURANCE Company. The cost of Insurance on the Mutual plan is but a small sum, compared with a joint stock company. This company being located in the Western part of the State, consequently much the larger portion of the risks are in the West, very many of which are in the country.

The Company is entirely free from debt: has made no assessments, and has a very large amount in cash and good bonds, and is therefore confidently recommended to the public.

At the last Annual Meeting the following Officers were elected for the ensuing year:—

JAMES SLOAN, *President*.
S. G. COFFIN, *Vice President*.
C. P. MENDENHALL, *Attorney*.
PETER ADAMS, *Sect. & Treasurer*.
W. H. CUMMING, *General Agent*.
PETER ADAMS, *Secretary*.
GEORGE T. COOKE, *Agent at Raleigh*.

January 1, 1856.

29—tf.

NORTH CAROLINA MUTUAL LIFE INSURANCE Company, Raleigh, N. C. This Company insures the lives of individuals for one year, a term of years, or for life, on the MUTUAL PRINCIPLE, the assured for life participating in all the profits of the Company. For policies granted for the whole term of life, when the premium therefor amounts to \$30, a note may be given for one half the amount of the premium bearing interest at 6 per cent. without guaranty.

The prompt manner in which all losses have been paid by this Company, together with low rates of premium, present great inducements to such as are disposed to insure.

SLAVES are insured for a term of from one to five years, for two-thirds their value.

All losses are paid within 90 days after satisfactory proof is presented.

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WM. D. HAYWOOD,	WM. D. COOKE,
JOHN G. WILLIAMS,	R. H. BATTLE,
H. W. HUSTED,	WM. H. JONES,
WM. H. MCKEE,	P. F. PESCUDE,
CHARLES B. ROOT,	SEATON GALE.

OFFICERS.

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WILLIAM D. HAYWOOD, <i>Vice President</i> ,	
JAMES F. JORDAN, <i>Secretary</i> ,	
WILLIAM H. JONES, <i>Treasurer</i> ,	
H. W. HUSTED, <i>Attorney</i> .	
CHARLES E. JOHNSON, M. D. } <i>Medical</i>	
WILLIAM H. MCKEE, M. D. } <i>Board of</i>	
RICH'D. B. HAYWOOD, M. D. } <i>Consultation.</i>	
R. H. BATTLE,	} <i>Executive Com-</i>
W. W. HOLDEN,	
CHARLES B. ROOT,	

J. HERSMAN, *General Agent*.

Communications should be addressed, (post paid) to
JOHN G. WILLIAMS, *Secretary*.

NORTH CAROLINA MUTUAL INSURANCE COMPANY

AT THE ANNUAL MEETING OF THE North Carolina Mutual Insurance Company, held on the 9th inst. the following persons were elected Directors and Officers for the ensuing year:

DIRECTORS:

J. B. G. Roulbac, Raleigh.	
Henry D. Turner, do.	
J. R. Williams, do.	
T. H. Selby, do.	
C. W. D. Hutchings, do.	
James F. Jordan, do.	
James M. Towles, do.	
James E. Hoyt, Washington.	
Alex. Mitchell, Newbern.	
Joshua G. Wright, Wilmington.	
John M. Jones, Edenton.	
W. W. Griflin, Elizabeth City.	
F. F. Fagan, Plymouth.	
W. N. H. Smith, Murfreesboro'.	
H. B. Williams, Charlotte.	
Geo. A. Smith, Milton.	
O. F. Long, Hillsboro'.	
Joseph White, Anson County.	
Josh. Boner, Salem.	
A. T. Summy, Asheville.	

OFFICERS OF THE COMPANY.

J. G. B. Roulbac, <i>President</i> .	
H. D. Turner, <i>Vice President</i> .	
John C. Partridge, <i>Secretary</i> .	
John H. Bryan, <i>Attorney</i> .	

John R. Williams,	} <i>Executive Committee.</i>
T. H. Selby,	
C. W. D. Hutchings,	

This Company has been in successful operation for more than 7 years, and continues to take risks upon all classes of property in the State, (except Steam

Mills and Turpentine Distilleries), upon favorable terms. Its Policies now cover property amounting to \$4,500,000, a large portion of which is in Country risks; and its present capital is nearly Seven Hundred Thousand Dollars, in bonds properly secured.

The average cost of Insurance upon the plan of this Company has been less than one third of one per cent. per annum, on all grades of property embraced in its operations.

All communications in reference to insurance should be addressed to the Secretary, post paid.

J. C. PARTRIDGE, *Sec'y.*

Raleigh, Jan. 9th, 1855.

Warrenton Female Collegiate Institute, WARRENTON, N. C.

THE 30th session of this school will commence on the 3d of January next, prepared to give thorough instruction in all the branches of female education. Pupils received at any time. All charges from time of entrance.

Terms per Session :

Board, washing, lights and fuel in rooms,.....	\$60 00
English tuition,.....	12 50
Music on Piano, Guitar, Melodeon, with use of instrument, each.....	23 00
Oil Painting,.....	15 00

Persons wishing further information, will please apply to
GRAVES, WILCOX & CO.
December, 1855.

THE NEW HOTEL, WELDON, N. C.,

IS NOW OPEN for the reception of visitors. This Hotel is new and newly furnished, and the Proprietors will use every effort to keep a GOOD HOUSE, and render their guests comfortable.

They respectfully solicit a share of public patronage.
T. J. JARRATT & Co.
Proprietors.

MEALS always ready on the arrival of the cars.
July, 1855. 33—tf.

AYER'S PILLS,

A new and singularly successful remedy for the cure of all Bilious diseases—Costiveness, Indigestion, Jaundice, Dropsy, Rheumatism, Fevers, Gout, Hu mors, Nervousness, Irritability, Inflammations, Headache, Pains in the Breast, Side, Back, and Limbs, Female Complaints, &c., &c. Indeed, very few are the diseases in which a Purgative Medicine is not more or less required, and much sickness and suffering might be prevented, if a harmless but effectual Cathartic were more freely used. No person can feel well while a costive habit of body prevails; besides it soon generates serious and often fatal diseases, which might have been avoided by the timely and judicious use of a good purgative. This is alike true of Colds, Feverish symptoms, and Bilious derangements. They all tend to become or produce the deep seated and formidable distempers which load the bowels all over the land. Hence a reliable family physic is of the first importance to the public health, and this Pill has been perfected with consummate skill to meet that demand. An extensive trial of its virtues by Physicians, Professors, and Patients, has shown results surpassing any thing hitherto known of any medicine. Cures have been effected beyond belief, were they not substantiated by persons of such exalted position and character as to forbid the suspicion of untruth.

Among the many eminent gentlemen who have testified in favor of these Pills, we may mention:

DR. A. A. HAYES, Analytical Chemist, of Boston, and State Assayer of Massachusetts, whose high professional character is endorsed by the

HON. EDWARD EVERETT, Senator of the U. S.

ROBERT C. WINTHROP, Ex-Speaker of the House of Representatives.

ABBOTT LAWRENCE, Minister Plen. to England.

+ JOHN B. FITZPATRICK, Cath. Bishop of Boston.

Also, DR. J. R. CHILTON, Practical Chemist, of New York City, endorsed by

HON. W. L. MARCY, Secretary of State

WM. B. ASTOR, the richest man in America.

S. LELAND & Co., Prop'r's of the Metropolitan Hotel, and others.

Did space permit, we could give many hundred certificates, from all parts where the Pills have been used, but evidence even more convincing than the experience of eminent public men is found in their effects upon trial.

These Pills, the result of long investigation and study, are offered to the public as the best and most complete which the present state of medical science can afford. They are compounded not of the drugs themselves, but of the medicinal Virtues only of Vegetable remedies, extracted by chemical process in a state of purity, and combined together in such a manner as to insure the best results. This system of composition for medicines has been found in the Cherry Pectoral and Pills both, to produce a more efficient remedy than had hitherto been obtained by any process. The reason is perfectly obvious. While by the old mode of composition, every medicine is burdened with more or less of acrimonious and injurious qualities, by this each individual virtue only that is desired for the curative effect is present. All the inert and obnoxious qualities of each substance employed are left behind, the curative virtues only being retained. Hence it is self-evident the effects should prove as they have proved more purely remedial, and the Pills a surer, more powerful antidote to disease than any other medicine known to the world.

As it is frequently expedient that my medicine should be taken under the counsel of an attending Physician, and as he could not properly judge of a remedy without knowing its composition, I have supplied the accurate Formulae by which both my Pectoral and Pills are made to the whole body of Practitioners in the United States and British American Provinces. If, however, there should be any one who has not received them, they will be promptly forwarded by mail to his address.

Of all the Patent Medicines that are offered, how few would be taken if their composition was known! Their life consists in their mystery. I have no mysteries.

The composition of my preparations is laid open to all men, and all who are competent to judge on the subject freely acknowledge their convictions of their intrinsic merits. The Cherry Pectoral was pronounced by scientific men to be a wonderful medicine before its effects were known. Many eminent Physicians have declared the same thing of my Pills, and even more confidently, and are willing to certify that their anticipations were more than realized by their effects upon trial.

They operate by their powerful influence on the internal viscera to purify the blood and stimulate it into healthy action—remove the obstructions of the stomach, bowels, liver, and other organs of the body, restoring their irregular action to health, and by correcting, wherever they exist, such derangements as are the first origin of disease.

Being sugar wrapped they are pleasant to take, and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see wrapper on the Box.

PREPARED BY JAMES C. AYER.

Practical and Analytical Chemist,

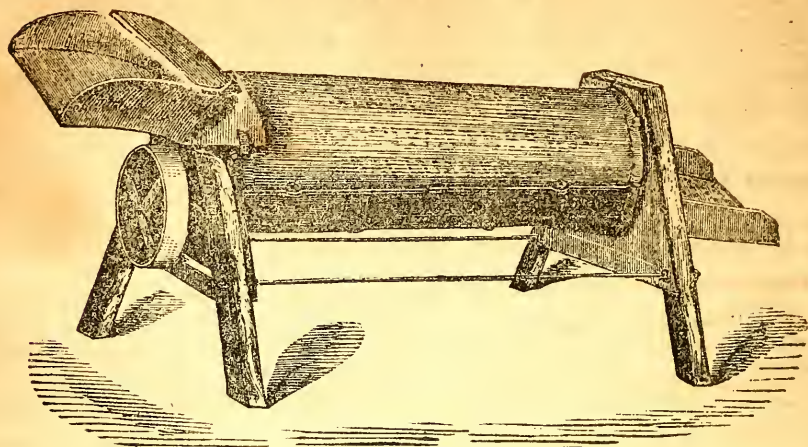
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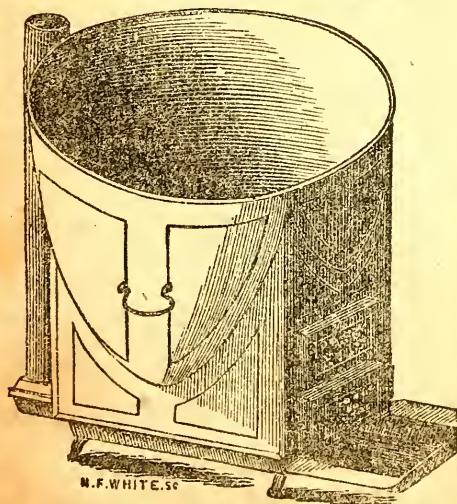
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Sizes—15, 22, 33, 60, 90, 120 gallons.

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An excellent article for Cutting up Sausage Meat, and for Stuffing the same. The machines are separate, and can be bought so, or together, they will do the work of 8 to 10 persons by the ordinary method. The Cutters will cut into fine meat, (finer than can be chopped by hand,) at the rate of 1 lbs. per minute, or 25 pounds per hour. We have small and large sizes of the cutters at \$5, 6.50, 8.00, 10.00 each.

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